

Public Utilities

FORTNIGHTLY



November 7, 1940

UNCLE SAM IN A SWAMP

By Herbert Corey

“ ”

Mobilizing Transportation for Defense

By T. N. Sandifer

“ ”

Selection of Employees for
Good Public Relations

*As reported to
James H. Collins
by*

Dr. Doncaster G. Humm

PUBLIC UTILITIES REPORTS, INC.
PUBLISHERS



"I'M NO BOOK AGENT, MR. WATTS.."

"But here's something that every electric utility executive..."

"Har-umpf! I just can't wait."

"But, Mr. Watts! Did you know that 97 families out of 100 serve coffee at least once a day?"

"You stagger me, Miss Patterson. But what's that to do with..."

"Everything! A nation of coffee drinkers has got to have glass coffee makers."

"Don't ramble."

"I'm not rambling. This book shows that scads of families have irons and toasters and vacuum cleaners, but only 17% have glass coffee makers."

"Hmmm! The light dawns, Miss Patterson."

"You haven't heard anything yet. A cleaner adds only 24 KWH to the load, a toaster only 30, an iron only 80 — but a Silex Glass Coffee Maker with Anyheat Control adds 97 KWH. And how'd you like to know the KWH we could add to *our* load for the next five years by pushing Silex?"

"Miss Patterson, where'd you get that book?"

"The Silex representative. He's waiting outside right now."

"Hmmm... load building. Show him in."

Yes... Show Him In

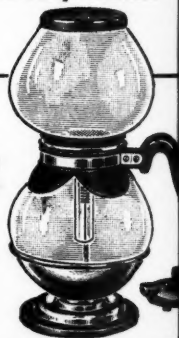
In 5 minutes your Silex representative will take you through the "Silex KWH Campaign Book" and prove that Silex promotion can put more KWH on your load than any other small appliance except a roaster.

Every Electric Silex has a "Self-Timing" Stove!

► It's an exclusive Silex feature, patented so others can't copy. Women love it... makes uniform, better-tasting coffee every time. All electric Silex Glass Coffee Makers have "Self-Timing" Stoves. And electric models are priced from \$4.95 to \$29.95. Illustrated, 8-cup, black trim...

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Creators of the Glass Coffee Maker Industry

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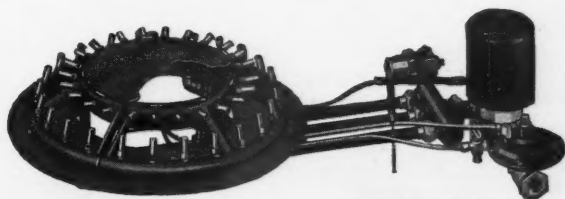
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Public Utilities Fortnightly



VOLUME XXVI

November 7, 1940

NUMBER 10

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Q This magazine is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouth-piece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

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Pages with the Editors

THE news from the conflict abroad brings us constant reminders of the importance of utility service in carrying on civilization as we know it. Gilbert Chesterton, the British author who died not long ago, once said that civilization is "apparently as modern as its public utility service." He might well have added that a disruption of a modern city's public utility service would put it out of business as a container of civilization or anything else in short order.

Nor long ago the well-known commentator on the European conflict, Raymond Gram Swing, discussed the air raids over London in a Columbia Broadcasting System program originating at Station WOR in Newark, New Jersey. Mr. Swing said:

"... The raids on London, I might add, are creating some new concepts. A city under attack is no stronger than its sewer system, and its electricity and water supply. London sewers to some extent are only a shallow distance underground. Bombs disrupt them and one suddenly realizes that this might become a decisive factor in defense. If the system was ruined—the one in London hasn't been—it would be impossible to maintain health and the city would be lost. To offset this danger, London has a stroke



HERBERT CUREY

Santee-Cooper has so far proven a good provider for South Carolinian jobholders.

(SEE PAGE 647)

of good fortune in that Britain's highly modern grid system for electric utilities hasn't been fully carried out.

"The grid is there; that is, there are eight great power centrals for the nation and they are all linked up, and in due course all the little independent power houses would have passed out of existence. Then if eight power houses or the communicating apparatus could be bombed, the country would be paralyzed. But the little independent power services were given time to fold up. And London instead of relying on a single great central is really a family of cities each still with its own power house. Here is a little sermon on old-fashioned decentralization. If London had been more promptly modern it might have been much easier for the bombers to knock it out."



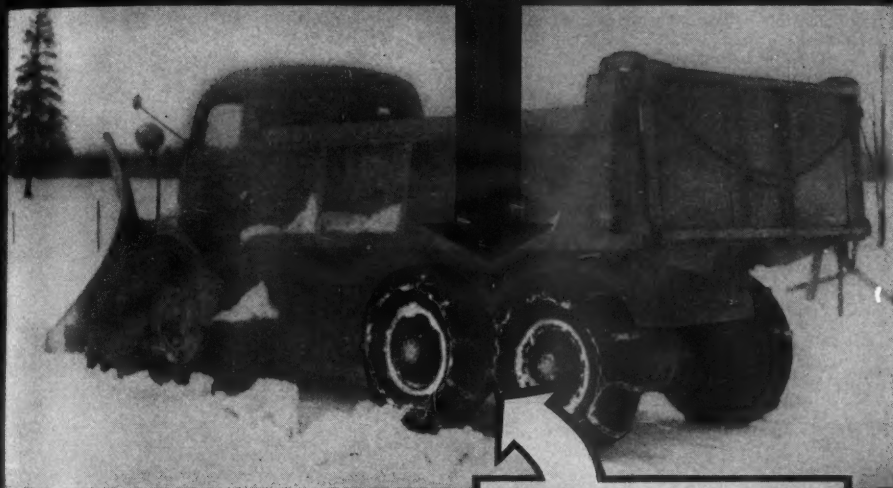
T. N. SANDIFER

The mustering of trains and planes poses a problem in industrial transportation.

(SEE PAGE 657)

INCIDENTALLY, on this side of the Atlantic there are those who are urging the establishment of a somewhat similar grid system—in some localities at least—as a means of increasing the nation's power production capacity for defense purposes. The comparison between the United States and England in this respect is perhaps not a fair one, inasmuch as England is a relatively small geographical area under the immediate pressure of an aerial

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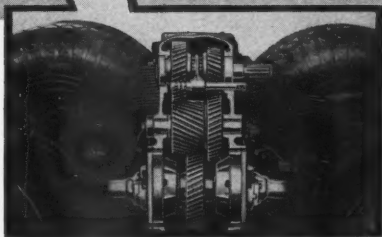


When there's heavy work to do, TWO driving axles under the load are better than one. For better traction and load flotation use the

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Manufacturers also of the THORNTON automatic-locking DIFFERENTIAL which gives traction when slippery going makes trucks equipped with ordinary differentials helpless.

"When you need TRACTION you need THORNTON"

siege, whereas the United States is a nation of broad dimensions not under immediate threat of a direct siege, but which might perhaps profit in some localities from further electrical interconnection. However, there is a difference of opinion on other power projects urged as a matter of national defense.

PRESIDENT Roosevelt, for example, recently made a preliminary start on his own initiative towards bringing about the fulfillment of his long-desired water-power development on the St. Lawrence through collaboration with the Dominion of Canada under the heading of mutual defense. Yet, the National Coal Association, in a press release of September 24th, advocated decentralized steam-generating stations rather than hydro sites to provide electricity for national defense industries. The release cited the vulnerability of huge hydro dams and suggested that it might be an easy matter for hostile bombers to fly up the thread of the St. Lawrence river until they came to a hydro dam and knock it out of operation by bombardment.

FURTHER south we have the Santee-Cooper project, which has recently been urged by the chairman of the Federal Power Commission and others as a vital link in our national defense industry. HERBERT COREY, veteran Washington observer, made a trip to South Carolina to see what there was to these and other claims about Santee-Cooper. The leading article in this issue is the result.

FOR the past dozen years, DR. DONCASTER G. HUMM has been a consulting psycholo-



© Jose Reyes, Hollywood

DONCASTER G. HUMM

He suggests "temperament charts" for prospective utility employees.

(SEE PAGE 663)

NOV. 7, 1940



JAMES H. COLLINS

Personnel selection is entitled to at least as much care as any other phase of operation.

(SEE PAGE 663)

gist in Los Angeles, specializing largely in industrial problems, and with Guy W. Wadsworth, Jr., has developed the Humm-Wadsworth temperament scale, described in his article in this issue (beginning page 663).

BORN in Punxsutawney, Pennsylvania, in 1887, he worked in a general store, thought he would like law, went to Bucknell University and took his A.B. in 1909, and then roamed widely, both in jobs and geographically. Finally, engaged to help take a mental hygiene survey in Arizona, he decided that psychiatry and psychology were his field, and at the University of Southern California, Los Angeles, took his A.M. in 1926, and his Ph.D. in 1932. His first professional work was with the state institutions in California, and from that he graduated into independent practice.

JAMES H. COLLINS, who interviewed DR. HUMM in the preparation of this article, is a Los Angeles editor and journalist well known to readers of the FORTNIGHTLY.

ALSO in this issue is another in our series of articles on the subject of the place of utilities in the national defense. T. N. SANDIER, veteran Washington newspaper correspondent, analyzes the mobilizing of the various transportation facilities in the program of making America invincible.

THE next number of this magazine will be out November 21st.

The Editors

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PREPRINTS FROM PUBLIC UTILITIES REPORTS

Various regulatory rulings by courts and commissions reported in full text, pages 129-192, from 35 PUR(NS)



ACCEPTED - Because VULCAN is DEPENDABLE!

Engineering executives purchase equipment on demonstrated performance. That's why engineers in every conceivable industry purchase Vulcan and the reason why Vulcan was sold in forty-three states, every Province of Canada, Porto Rico, Territory of Hawaii and eleven foreign countries during the past year. The following partial list of representative contracts for 1939 demonstrate the popularity of Vulcan among engineers in every type of industry who have taken the time to investigate the reasons for Vulcans rugged dependability. Many of these contracts are repeat orders, real evidence that Vulcan gives highest satisfaction.

Socony Vacuum Oil Co.....East St. Louis, Mo.
 Town of Albion.....Albion, Indiana
 Fairpoint Corporation.....New Bedford, Mass.
 Charleston Navy Yard.....Charleston, S. C.
 U. S. Naval Academy.....Annapolis, Md.
 Metropolitan Life Insurance Co.....New York City
 Park Chester Housing Development
 Griesdick Western Brewery.....Belleville, Ill.
 Minot Normal School.....Minot, N. D.
 Southland Paper Mills.....Lufkin, Texas
 Bethlehem Steel Company.....Lebanon, Penna.
 Norfolk Navy Yard.....Norfolk, Va.
 Fairmont City Light Co.....Fairmont, Minn.
 Evenson and Levering Company.....Camden, N. J.
 Socony Vacuum Oil Company.....Brooklyn, N. Y.
 City of Bellefontaine.....Bellefontaine, Ohio
 Gullinger Hospital.....Washington, D. C.
 Colorado State Agricultural College
 Fort Collins, Colo.
 Navajo Agency.....Ft. Defiance, Arizona
 Victor Chemical Company.....Mt. Pleasant, Tenn.
 McChord Field, U. S. Army.....Ft. Lewis, Wash.
 B. F. Goodrich Company.....Clarksville, Tenn.
 Canadian National Railways.....Winnipeg, Man., Can.
 Carnation Company.....Sherbrooke, Quebec, Can.
 Alexandria Steam Generating Co.....Alexandria, Va.
 South Porto Rico Sugar Company
 Santa Domingo, Dom. Rep.
 George Ziegler Company.....Milwaukee, Wis.
 Atlas Powder Company.....Stamford, Conn.
 Colorado State Capitol.....Denver, Colo.
 Hercules Powder Company.....Hercules, Del.
 U. S. Military Academy.....West Point, N. Y.

Container Corporation of America
 Circleville, Ohio
 Commodore Perry Housing Project.....Buffalo, N. Y.
 DeKalb State Teachers College.....DeKalb, Ill.
 United States Shoe Corp.....Norwood, Ohio
 The May Company.....Cleveland, Ohio
 United States Naval Hospital.....San Diego, Calif.
 Frankford Arsenal.....Philadelphia, Penna.
 Central Park Pumping Station.....Chicago, Ill.
 Virginia Public Service Co.....Hampton, Va.
 Atlas Powder Company.....Atlas, Mo.
 City of Fairmont.....Fairmont, Minn.
 Froedtert Grain and Maltng Co.....Milwaukee, Wis.
 Sonoco Products Company.....Garwood, N. J.
 Sheridan Brewing Company.....Sheridan, Wyoming
 City of Fort Collins.....Fort Collins, Colo.
 Ingenio Rioquilla.....Buenaventura, Columbia, S. A.
 South Carolina Electric and Gas Co.....Farr, S. C.
 American Woolen Company.....Fulton, N. Y.
 Keystone Public Service Company.....Oil City, Penna.
 Alabama Power Company.....Chickasaw, Ala.
 Pennsylvania Power and Light Co.
 Harrisburg, Pa.
 Holyoke Gas and Electric Co.....Holyoke, Mass.
 Durkee Famous Foods.....Chicago, Ill.
 Blanton Company.....St. Louis, Mo.
 Continental Diamond Fibre Co.....Bridgeport, Penna.
 Westinghouse Electric and Manufacturing
 Company, Lima, Ohio
 Libby, McNeill and Libby.....Chicago, Ill.
 Vanadium Corporation.....Naturita, Colo.
 Philadelphia Electric Company.....Chester, Penna.

Vulcan Soot Blower Corporation does not build down to a price. Vulcan builds into their equipment thirty-seven years of experience; build by highly skilled engineering and plant personnel of long service, using the highest type material that hard exacting service has demonstrated is the most practical for its purpose. The result is trouble free, long years

of service, making unnecessary frequent servicing—and when service is required, skilled field engineers on their rounds, offer it gladly to maintain your Vulcan equipment in top condition. Ask the Vulcan Sales or Field Engineer WHY Vulcan MUST build into their equipment the most rugged, trouble free, lowest maintenance you can buy.

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Remarkable Remarks

"There never was in the world two opinions alike."

—MONTAIGNE



RICHARD L. NEUBERGER
Writing in The Nation.

"... the Columbia river program has been a success beyond all expectations."

EDITORIAL STATEMENT
Electrical World.

"By no stretch of the imagination can the development of the St. Lawrence be of value to our defense program."

H. C. HASBROUCK
The Utility Management Corporation.

"... I am sorry that the phrase 'fair rate of return' ever got into the law and practice of public utility rate making."

WALTER M. PIERCE
U. S. Representative from Oregon.

"It is my theme that the profit motive should not be the dominating factor in the operation of utilities which are necessities of life for communities and individuals."

EDITORIAL STATEMENT
Industrial News Review.

"... surplus [Federal electric] power should be used in conjunction with national defense industries, instead of being used to deprive private utilities of customers."

JOHN C. PAGE
U. S. Commissioner of Reclamation.

"The Bureau of Reclamation estimates that perhaps as much as 20,000,000 acres additional can be irrigated with water resources as yet undeveloped and under policies now in effect."

JOHN L. LEWIS
President, Congress of Industrial Organizations.

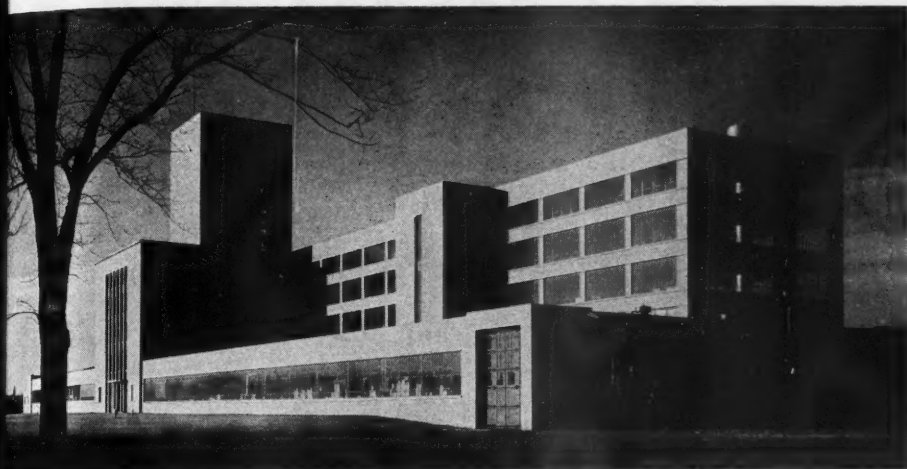
"Those who believe that the making of guns will solve the question of national unemployment have little comprehension and smaller understanding of the play of the world's economic forces."

BRUCE BARTON
U. S. Representative from New York.

"All history shows that one-man power is a gradual evolution. It does not spring full panoplied into dictatorship. Every dictator begins by denying that he will ever be a dictator. With tender care he preserves the outward trappings of democracy while whittling away at its heart."

LEO WOLMAN
National Bureau of Economic Research.

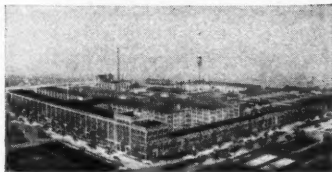
"Unless the conditions essential to the exercise of business foresight and the taking of risks exist, we may be forced to become content with a laggard industry, stationary or declining employment, and a permanent army of unemployed, which looks for a living not to the wages of industry but to the subsidies of government."



New Burroughs Factory Branch, Plymouth, Michigan

Growth + + +

Over a half-century ago Burroughs started in a small machine shop to manufacture the first practical adding machine. Business has since depended more and more on Burroughs for a steady flow of machines and developments to meet constantly changing conditions. Today's range of Burroughs products includes practically every type of figuring, accounting and forms-writing machine.



Burroughs Factory and General Offices, Detroit

Throughout the years, Burroughs has adhered to the highest standards of manufacture and quality, and has developed a worldwide factory-trained and factory-controlled service organization.

With this background of experience and wide variety of machines, Burroughs meets the needs of today's business for speed and economy, and is building for the future along lines which have made Burroughs a worldwide institution.

BURROUGHS ADDING MACHINE COMPANY, DETROIT, MICH.

Burroughs

DOES THE WORK IN LESS TIME—WITH LESS EFFORT—AT LESS COST

REMARKABLE REMARKS—(Continued)

WENDELL L. WILLKIE
Republican presidential nominee.

"It will only be a matter of time before the American labor movement becomes completely dominated by government and . . . in place of the old discredited company union we shall have government unions as in Nazi Germany."

M. J. GORMLEY
Association of American Railroads.

"Since 1921, there has been an almost constant erosion in the railway rate structure. In 1921 the railways received an average of 1.275 cents for hauling a ton one mile. In 1939, this average was 0.974 cent, a decline of 23.6 per cent."

WESLEY C. MITCHELL
Professor, Columbia University.

"To gain a billion, it is mathematically worth while risking a million if the chances of success are more than one in a thousand. A nation whose current annual income is estimated at seventy thousand millions would be wise to accept the odds."

THOMAS DEWEY
New York District Attorney.

"If a government charged with preserving our freedom finds it necessary to adopt the morals and theories of those to whom we are opposed, then indeed the soul of our nation is lost. We must not, in resisting totalitarianism, become totalitarian ourselves."

HARRY FLOOD BYRD
U. S. Senator from Virginia.

"Notwithstanding the imperative need of spending colossal sums for national defense, no effort has been made, either by Congress or the administration, to reduce non-defense spending, to eliminate waste and extravagance now existing in governmental expenditures."

EDITORIAL STATEMENT
Broadcasting.

"It is high time for a complete exposure of the forces behind the constant sniping the broadcasting industry is undergoing—a disclosure of the methods and motives of the snipers, not to mention their basic philosophies of regulation and the apparent ease with which they enlist Congressmen and Senators to their peculiar 'causes.'"

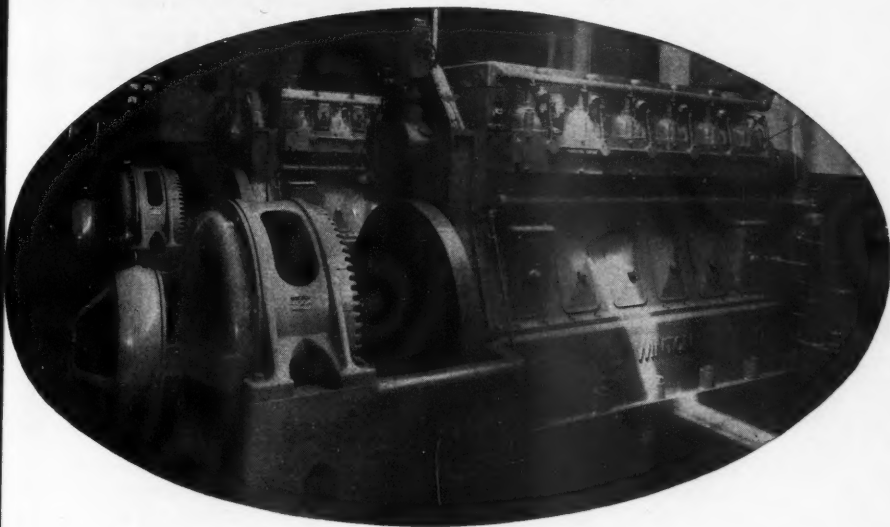
ROBERT M. LAFOLLETTE, JR.
U. S. Senator from Wisconsin.

"Unless we have the courage, as members of this body [Senate] and as representatives of the people who sent us here, to tax, and to tax now, I contend that we shall have to assume responsibility for the inevitable consequences which are certain to flow from our failure to face frankly and courageously this fiscal situation."

ALFRED P. SLOAN, JR.
Chairman, General Motors Corporation.

"If democracy and free enterprise are to survive, it seems apparent that its leadership must pass to those who have the experience and, even more important, the conviction to deal courageously with the great problems of the day on the basis of the realities—on the principle of that which truly constitutes the greatest good for the greatest number."

SERVICE PROVED lubricants assure dependable performance



Trick oils may look impressive in short demonstrations, but if you want Diesel oils that will give dependable, consistent performance—every day—every week—every month—you will want an oil that has proved its worth. Not an experimental oil but one that has been service proved—a Cities Service oil, engineered for the job. Experience has shown that no one oil will prove most effective and economical for a given make of engine under all conditions of operation. Such factors as power out-

put, crankcase oil temperatures, etc., may as often as not make the use of a cheap oil expensive and an expensive oil cheap. Let one of our lubrication engineers tell you why—and prove it on your own equipment. Mail the coupon to us or write us on your own letterhead.

In any event you will benefit from reading a copy of our new booklet on "Diesel Engine Lubrication." Sent free to any user of Diesel engine oil.



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AND MAIL

CITIES SERVICE OIL COMPANY
SIXTY WALL TOWER—ROOM 1626U,
NEW YORK, N. Y.

Please send me information concerning your Engineers' Lubrication Service _____

Please send me a copy of your free folder "Diesel Engine Lubrication" _____

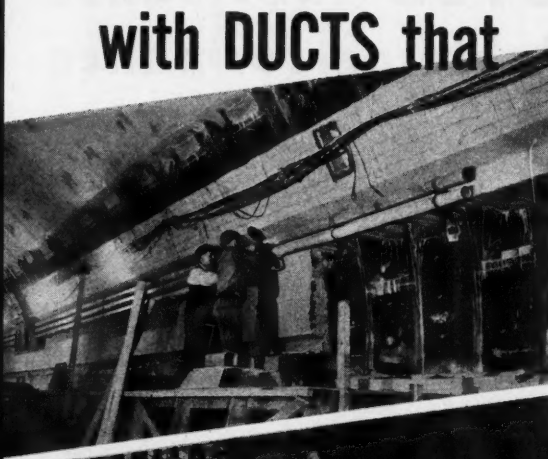
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Firm Name _____

Business Address _____ City _____

DISTRIBUTION COSTS LESS

with DUCTS that



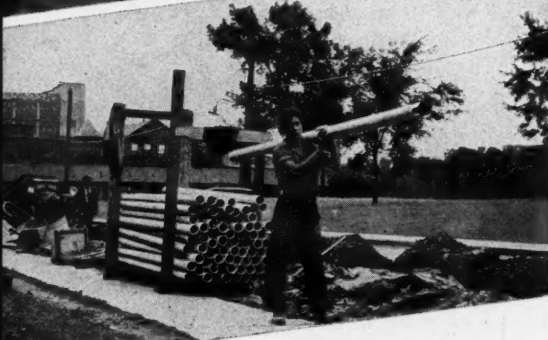
CUT COPPER LOSSES

Cables run cooler through J-M Transite Ducts because their dense, close-grained structure has an unusually high rate of heat dissipation. Therefore, I²R losses are reduced, and cables in systems using Transite Conduit and Korduct have a appreciably higher carrying capacities.



DO NOT BURN

Made of asbestos and cement, Transite Ducts are fireproof. Flame and arc caused by cable burnouts will not damage adjacent cables and equipment. Being inorganic, these modern cableways prevent formation of combustible and explosive gases and fumes. Furthermore, they cannot rot or decay... keep maintenance low.



SAVE at INSTALLATION

Transite Ducts come in long, high lengths that are easily and economically handled. Lining-up is fast and accurate... fewer joints are required. Their smooth bore stays smooth—assures easy pulling of new installations or replacements. And where Transite Conduit is used, it requires no concrete envelope.



● YOU'LL SAVE by using Transite Korduct wherever cables must be "concreted-in." On open and exposed locations, Transite Conduit is so durable it requires no protective casing. For full details, ask for brochure D.S. Johns-Manville, 22 East 40th Street, New York, N. Y.

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TRANSITE CONDUIT

for use underground without concrete envelope and for exposed locations

TRANSITE KORDUCT

for installation in concrete

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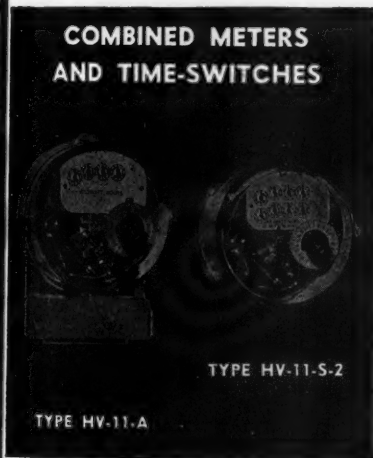
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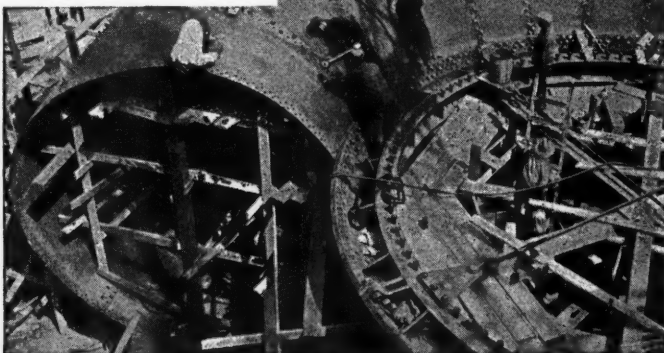
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Short Cut to Economy

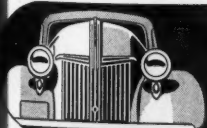
- Many a truck operator, after trying first one make then another, has standardized on Ford equipment. Others do it much sooner. They start with Ford Trucks and never change.
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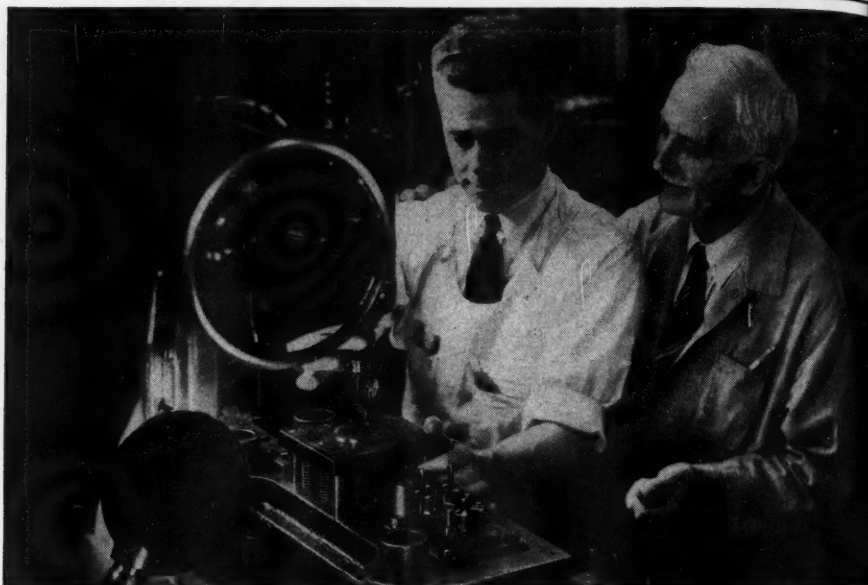
- ★ Choice of 2 improved V-8 engines — 85 or 95 hp.
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The skilled hands of our craftsmen—and the security and consideration they and *all* our em-

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ONLY A DROP IN THE BUCKET
but TO USERS OF

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... IT'S

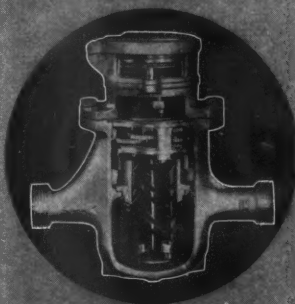
Revenue

THE saying "It's only a drop in the bucket" has long been used to describe inconsequential waste. But little drops of water accumulating over a period of time will amount to a surprisingly large volume. It's these little drops, the low flow rates of less than one gallon per minute, that the average domestic meter will not measure with any satisfactory degree of accuracy.

Authoritative sources report that approximately 30% of the water consumed in domestic service is at rates of flow under one gallon per minute. With conventional meters much of this low flow rate slips by the meter without being recorded. It is obvious that in any size distribution system this unrecorded flow amounts to a serious loss in revenue.

The Pittsburgh IMO Meter has effectively solved the problem of low flow measurement. Standard IMO specifications call for accuracy of 98% at 1/4 g.p.m., 90% at 1/12 g.p.m., and this initial accuracy is sustained accuracy as has been proven by the most severe tests conducted by unbiased engineers.

In addition to its accuracy qualifications, the inherent design of the Pittsburgh IMO results in silent operation, longer life and lower maintenance costs. You can get the facts about this remarkable meter and its ability to save important dollars in lost revenues from bulletin W-529. Write for your copy today.



Remember

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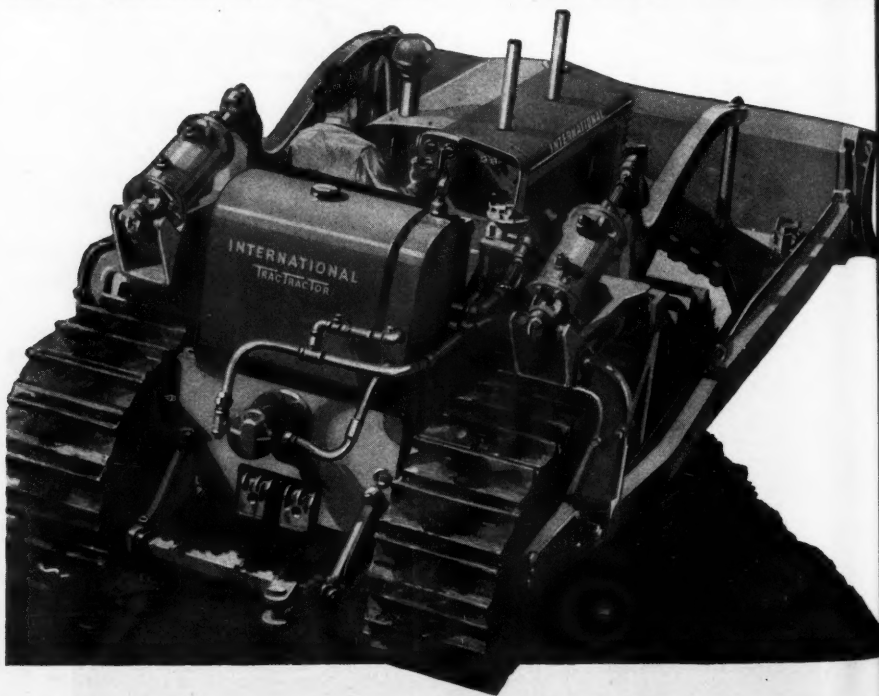
This quartet of streamlined efficiency has *everything* users have needed and asked for in crawler tractors . . . features and qualities that put TracTracTors well in advance of the market. On-the-job evidence proves the great value of such points as these: Easy-starting International *full* Diesel engines;

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Get acquainted with International Diesel TracTracTors—call the nearby International industrial power dealer or Company branch.

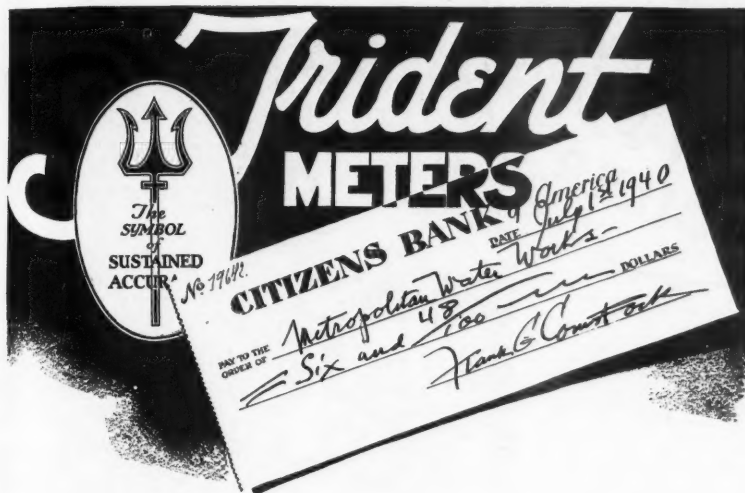
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INTERNATIONAL HARVESTER

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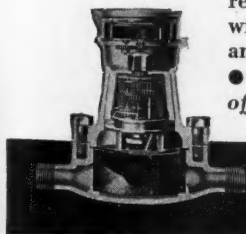
From the Standpoint of the *Customer..*



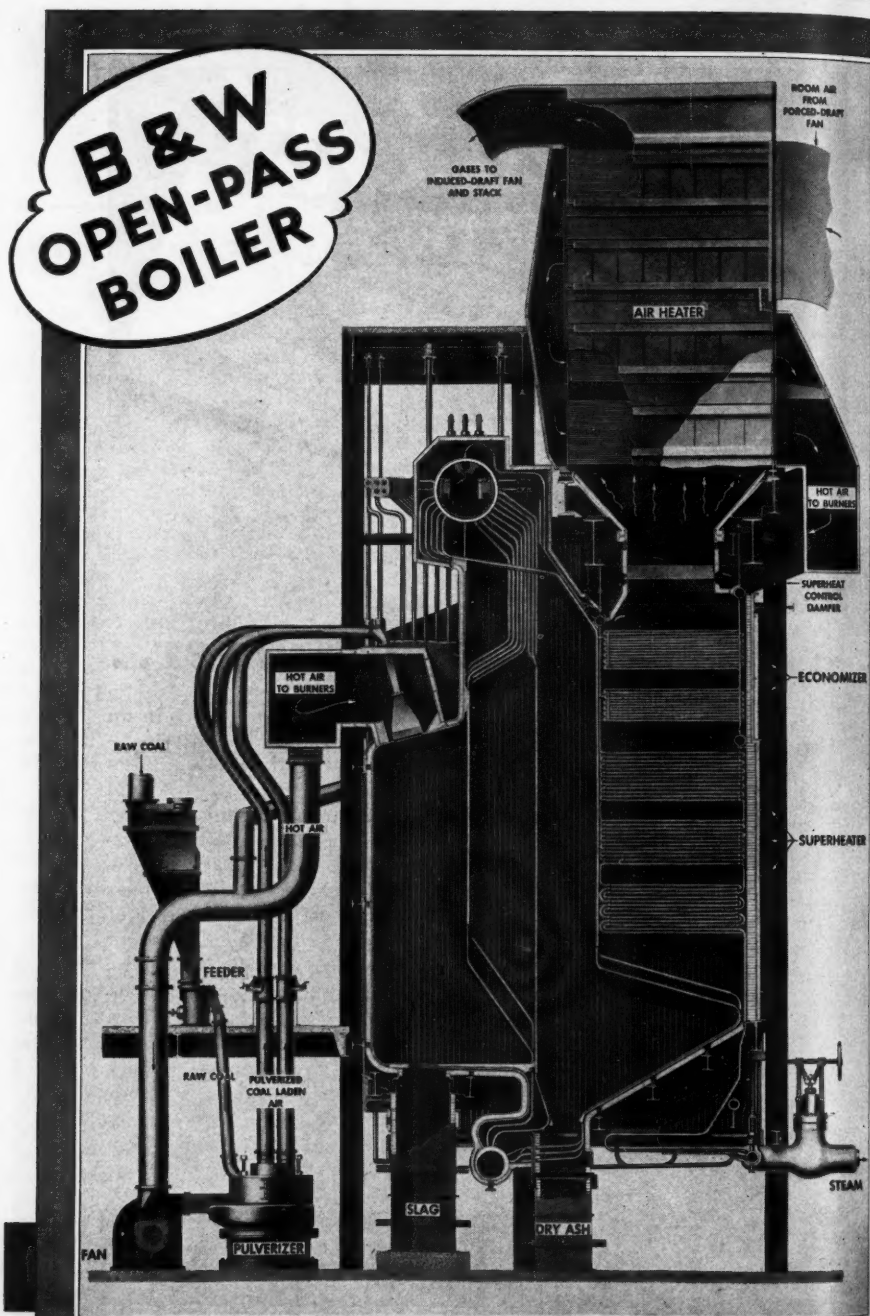
THE CUSTOMER is interested primarily in an efficiently and economically run Water Department. Efficiency in the operation of meters implies meters that are accurate at all rates of flow and which will serve the Department for many years at least expense. Such meters mean that the customer pays only his fair share of the water expense. The charge for water is equably distributed over the total gallonage actually used; and the cost of unregistered water and high maintenance need not be made up for by higher water rates nor taxes.

● Trident Water Meters have an established reputation for sustained accuracy at all rates of flow. They are simple and durable. They may be easily repaired and restored to a high degree of accuracy with interchangeable parts, which minimize labor and material costs.

● Trident Meter life and service far more than offset the initial cost of Trident Quality.



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A Pound of Prevention

The B&W Open-Pass Boiler is a new type of boiler that attacks at its source the problem of tube fouling caused by slag in high-temperature high-capacity boilers. The design is such that a considerable quantity of the ash is eliminated ahead of the convection surface in the boiler, and, at the same time, the remainder of the ash is conditioned so that it is relatively harmless as it passes over the convection surface.

In high-capacity boilers of conventional designs, the problem of tube fouling has been accentuated largely because high-temperature steam requirements necessitate the superheater being in a zone of high-temperature gases and, therefore, without the protection of boiler tube banks to the extent previously employed in lower temperature units.

The Open-Pass Boiler meets and solves this problem.

The slag-tap furnace of this unit which, during operation, has liquid ash covering its walls and floor, is ideally suited for ash elimination. The molten slag on these surfaces functions effectively in retaining ash particles coming in contact with it, these slag accumulations running down the walls continuously to be discharged through the slag-tap opening in the furnace floor.

On leaving the primary furnace the gases travel at high velocity through long, open, water-cooled passes that provide a transition stage in which the ash leaving the primary furnace in suspension in the gases, passes

from the fluid state, through a plastic sticky state, to a dry granular form.

A large part of the slag particles carried in suspension into the first open pass deposits on the walls, and, being at a high temperature, is removed naturally by flowing down onto the floor of the primary furnace and through the slag-tap opening. In the second open pass, the ash is dry and is discharged with the aid of downwardly flowing gases to the dry-ash hopper. The downflow of gases at relatively high velocity promotes self-cleaning and uniform gas temperature across the pass, without lanes of higher-than-average temperature gases that would exist with a slower, upward flow of gases in a larger chamber. Added to this downflow is a U-turn of the gases, which, together with a reduction in their velocity before they enter the superheater, provides an arrangement that ensures further effective removal of ash and materially reduces the quantity of ash reaching the convection superheater tubes with gases at a more nearly uniform temperature across the entire width of the tube bank than is possible with more conventional designs. Thus, there is little opportunity for gas lanes at higher-than-average temperature to cause tube fouling.

It is in this manner that the slag problem is approached with the B&W Open-Pass Boiler—with a pound of prevention instead of the proverbial ounce—by attacking the *cause* of slag fouling.

185-T

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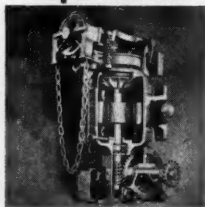
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Dependable

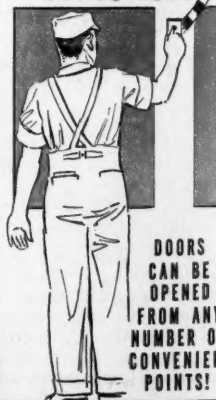


This rugged Kinnear Motor Operator opens the doors, quickly, smoothly, easily. Built for long, care-free, economical, heavy-duty service! Easily added to any Kinnear Rolling Door—whether new or now in service.

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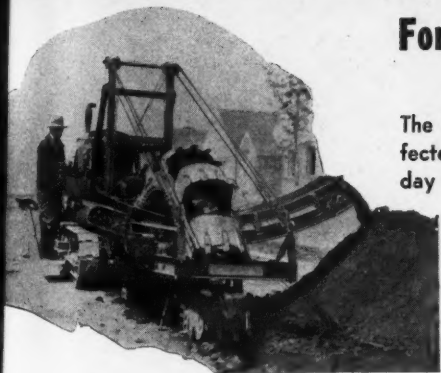
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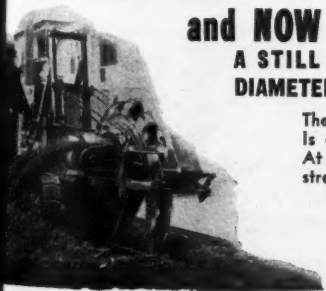
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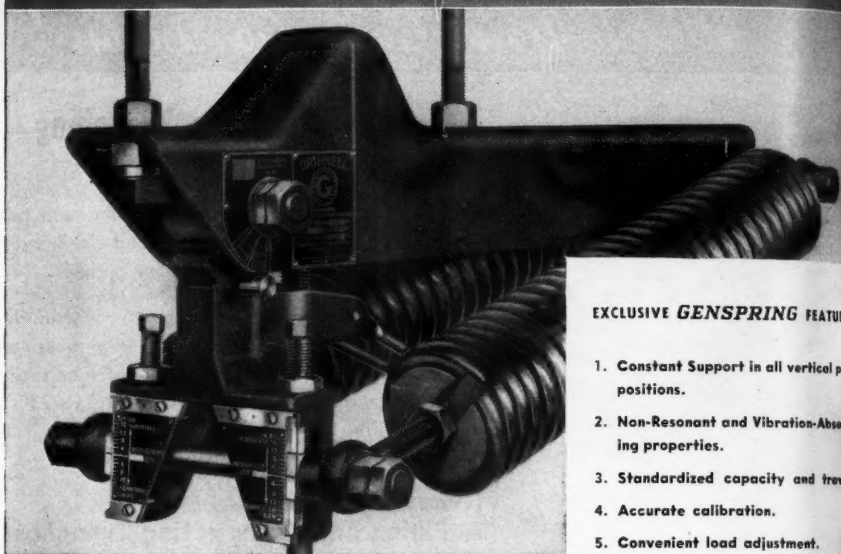
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Unique GENSPRING Constant-Support Hangers eliminate weight-stress . . . boost overall safety factors of piping!

EXCLUSIVE GENSPRING FEATURES

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No other hanger offers such opportunity for improvements and economies in power piping systems! That's why GENSPRING Constant-Support Hangers are now serving in leading steam plants, in naval and commercial ships, and in major oil refineries throughout the world.

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GENSPRING CONSTANT-SUPPORT HANGERS

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WHENEVER PIPING IS INVOLVED

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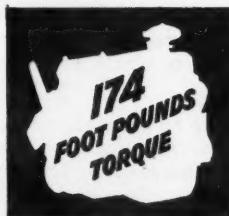
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How rapidly can your Contact Clerks take care of service applications . . . bill questions . . . complaints?

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Unless your Company has a perfect score on these questions you will want to know more about the Dictograph Customer Contact System.

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May we have our Special Utility Representative call to discuss your problem with you . . . no obligation.

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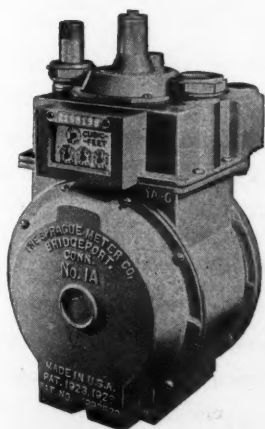
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LINE CLEARING

SPRAGUE COMBINATION METER-REGULATOR



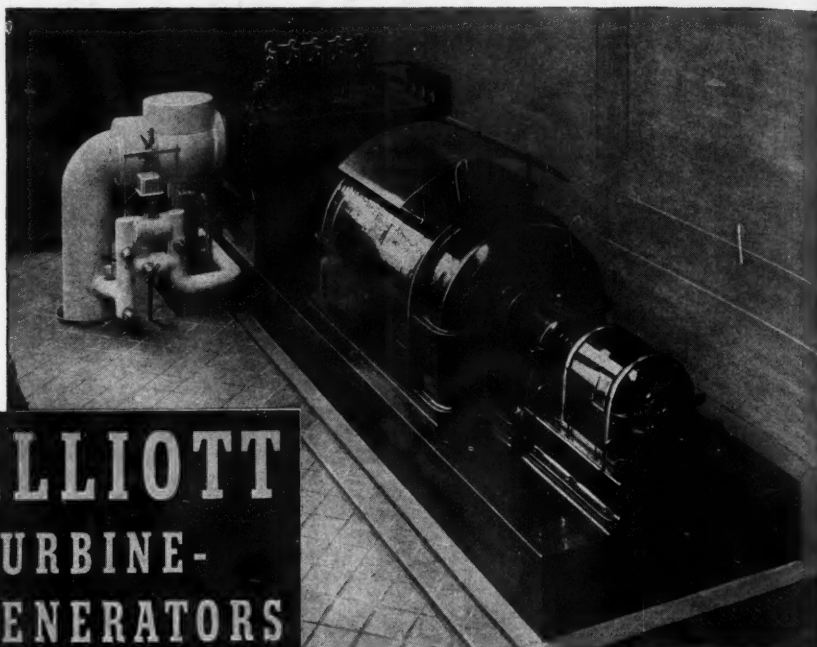
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Bridgeport, Conn.

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H-636a

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*Elliott Company is particularly well fitted to build small
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ELLIOTT COMPANY

Steam Turbine Department,
JEANNETTE, PA.




Utilities Almanack



NOVEMBER



7	T ^a	<p>1 American Water Works Asso., Minn. Sec., opens meeting, St. Paul, Minn., 1940.</p> <p>1 American Water Works Asso., Four States Sec., convenes, Wilmington, Del., 1940.</p>
8	F	<p>1 American Society of Mechanical Engineers will convene for session, New York, N. Y., Dec. 2-5, 1940.</p>
9	S ^a	<p>1 Tax Policy League will hold annual symposium, Chicago, Ill., Dec. 2, 3, 1940.</p>
10	S	<p>1 American Society of Agricultural Engineers will hold fall meeting, Chicago, Ill., Dec. 2-6, 1940.</p>
11	M	<p>1 Mid-West Gas School and Conference open, Iowa State College, Ames, Iowa, 1940.</p> <p>1 Wisconsin Utilities Asso., Electric Sec., starts meeting, Milwaukee, Wis., 1940.</p>
12	T ^u	<p>1 National Adequate Wiring Bureau and the International Association of Electrical Leagues hold adequate wiring conference, Chicago, Ill., 1940.</p>
13	W	<p>1 American Water Works Asso., Missouri Valley Sec., convenes, Omaha, Neb., 1940.</p> <p>1 American Municipal Association starts meeting, Chicago, Ill., 1940.</p>
14	T ^h	<p>1 Mid-Southeastern Gas Association opens convention, Raleigh, N. C., 1940.</p> <p>1 Illinois Public Utilities Asso. starts general meeting, Peoria, Ill., 1940.</p> 
15	F	<p>1 Kentucky Independent Telephone Association will hold meeting, Dec. 3, 4, 1940.</p>
16	S ^a	<p>1 American Transit Association, Bus Division, will hold New England regional conference, Boston, Mass., Dec. 5, 1940.</p>
17	S	<p>1 National Warm Air Heating and Air Conditioning Association will convene, Detroit, Mich., Dec. 9-11, 1940.</p>
18	M	<p>1 National Conference on Government begins, Springfield, Mass., 1940.</p> <p>1 Virginia Independent Telephone Association begins convention, Roanoke, Va., 1940.</p>
19	T ^u	<p>1 National Association of Railroad and Utilities Commissioners will hold annual convention, Miami, Fla., Dec. 10-12, 1940.</p>
20	W	<p>1 Midwest Transit Association will hold winter meeting, Kansas City, Mo., Dec. 13, 1940.</p>



From an etching by A. Publiese

Courtesy, Kennedy & Co., New York

Iron Men

Public Utilities

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Uncle Sam in a Swamp

The author takes a look at the forty-nine-million-dollar Santee-Cooper Federal project in South Carolina.

By HERBERT COREY

THERE must be something wrong with this article. It does not seem probable that any enterprise thought up by mortal man could be as warped and tangled as the Santee-Cooper lock, dam, and pork barrel project seems to be. It is only reasonable that some extenuating circumstance can be found for it—outside, of course, of the all-important fact that it is scattering forty-nine millions of the Federal taxpayers' best dollars among the patriots of South Carolina—but this writer has failed to find it. It is an outstanding evidence that the people are being ruled nowadays by a group of All Highests and that the only

choice left to the taxpayer is to like it or not like it. He will take it, either way.

Let us discover precisely what this Santee-Cooper project appears to be:

It is a flood control project that can control no floods.

It is a navigation project that may never float a laden boat.

It is a power production plant in a state that now exports one-fourth of the power it produces.

It is set in a section which is next thing to moribund, for its population is largely Negro, and its agriculture has declined.

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It promises, on the statement of experts, to injure the fishing and destroy much of the wild life in the area.

It will cover with muddy waters 50,000 acres on which more or less successful farming is now being done.

It will compel the transplanting of hundreds of swamp Negroes from homes in which they are content to localities in which they may be tragic and infinitely pathetic misfits.

It will establish two new breeding plants for the malaria-carrying mosquito in the low countries which are already saturated with chills and fever.

It will drive out of business several lumbering and wood-working companies.

It may cost \$100,000,000 instead of the \$49,000,000 of the present.

IT will either compel the reluctant state of South Carolina to put its hand in its pocket and underwrite is upkeep—although the state had so little confidence in it that it peremptorily and statutorily declined to contribute so much as one thin dime—or else—

The state will throw the cost of maintenance back to the Federal government, which will then resort to its time-honored scheme of seizure of privately owned plants for outlets.

It is, in short, one of the most extraordinary combinations of politics and taxpayer robbery to be encountered in a period of political extravagance in which the taxpayer is the universal fall guy. If there is one good thing which can be truthfully said of the Santee-Cooper project, I have not heard it. I do not count it a good thing that fat salaries are being paid from the Federal Treasury to complaisant employees of the South Carolina state.

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IF I am wrong it will not be difficult to prove it. Suppose we examine Santee-Cooper link by link—or, better still, scale by scale.

Charleston, S. C., is one of the loveliest cities in the United States. If I were to say that it is the loveliest, I would not be challenged by those who know it. Three hundred thousand visitors left an average of \$10 each in 1940 and there will be more in each succeeding year as the tale of its ancient architectural beauties and its acres of flowers becomes better known. But it is somnolent. Once it was the third most important port but it is not to be found today in the list of important ports in the World Almanac. First indigo and then rice and finally cotton failed it. It has a navy yard and a few small industries, but it devotes itself chiefly today to the art of gracious living. On the mainland are farm lands which are no longer fertile and areas of primeval timber and great swamps abounding in deer and bear and cotton-mouth moccasins.

Cooper river is a tidal estuary which forms a part of its harbor, and is navigable for a few miles from the sea. Farther north is the swift Santee, reddish-brown with silt, 150 miles long, and said to carry more water than the Hudson. The Santee's bed is 70 feet higher than the sea level Cooper, and in 1800 a 22-mile-long canal was completed to connect the two rivers, with a minimum depth of 4 feet. For fifty years this made water transportation possible between Charleston and Columbia, S. C., a distance of 130 miles, but railroad competition ultimately forced its abandonment. Nowadays the trucks are eating away the railroads' freight business, but the old

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dream of cheap water haulage lived on. Various surveys were made, but nothing was done until in 1926 a company secured a license and permit from the FPC to generate electricity by water power in the Santee basin. Again nothing happened until the Age of Gold dawned in 1933.

SOUTH Carolina takes its politics without water. In 1932 it cast 102,347 votes for Roosevelt against only 1,978 for Landon, but when the shower of easy money was well under way it learned to its horror that it had been almost forgotten. It is 39th in area; its assessed value is toward the bottom of the states' ranking; its state debt is relatively high; and the various taxes on industry and its punitive damage law had frightened business men away. It needed money badly, and someone remembered the shopworn Santee-Cooper project. U. S. Senator "Jimmy" Byrnes got busy. Governor Maybank said there would be 18,000 jobs to be had. At Washington the project was coldly received.

"Fantastic" was one statement credited to Secretary Ickes.

But the hungry South Carolinians leaped and howled at the gates of the Federal Treasury. The cost of the project was marked down at one time to \$12,000,000 from the starting point of \$40,000,000, but as the political fires began to thaw the Federal resistance, the cost was marked up again. The Santee-Cooper project touches only five counties and the rest of the state refused to get excited about it, but agreed that it was well to get the money while the getting was good. The editor of one paper said frankly that he had no liking for the scheme.

"But," he said in effect, "if the other states are getting all this money, we might as well get this \$40,000,000 for ourselves."

At last an agreement was reached which is unique in the history of Federal-state relations. Following is a quotation from the folder issued by the South Carolina Public Service Authority:

Construction of the \$40,000,000 Santee-Cooper project was financed under agreement with the PWA by a grant of \$15,435,000; in addition the WPA undertook the work of clearing the basin area at a cost of \$6,495,000; (there is also) a loan of \$18,865,000 secured by self-liquidating revenue bonds issued by the S. C. Public Service Authority. . . . The S. C. Authority maintains its own engineering staff to pass upon the various details. In addition PWA, as the financing agency, reviews all proposed expenditures, construction plans, and contracts.

RESTATING this for the sake of clarity, it appears the Federal government put \$21,930,000 in the pot through the twin PWA and WPA and then loaned \$18,865,000 on the "security" of revenue bonds. Since then some more money has been sent in by the Federal Santa Claus, making a Federal total of \$49,000,000 in round numbers. At this point another quotation from the authority's authorized statement is desirable, for it makes very clear the unchallenged fact that the state of South Carolina has never regarded the Santee-Cooper project as anything but a frying pan in which can be tried out the rich Federal fat.

Under the act passed by the S. C. general assembly, which provided for the Santee-Cooper project, the state of South Carolina and its political subdivisions are *forever exempted* from any financial liability arising from its construction and operation.

I furnished the italics in that sentence. If it means anything at all, and the forty-six counties of South

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Carolina, already overtaxed seriously, are apt to read it as written, it means that the state proposes not to assume financial responsibility to the extent of one sou markee. The general assembly, one would assume, lacked passionate belief in the project. But in order to get that first \$21,930,000 out of the Federal government it was necessary to make a gesture. The assembly authorized a "self-liquidating" loan of \$18,865,000:

Careful surveys have determined that its operation should be productive of sufficient revenue to pay all operating costs, retire the indebtedness represented by the issue of revenue bonds, and ultimately to acquire a substantial surplus, which, under law, will go into the treasury of the state for general purposes.

The state of South Carolina is due for a rude, even a noisy awakening if it hopes to evade payment of the "self-liquidating revenue bonds" on which it borrowed \$18,865,000 of Federal money. The government, on the authority of Dr. Clark Foreman, of the power division of the PWA, made the categorical statement that South Carolina is expected to pay up if and when the bonds default. The Interior Department, he said, had loaned on other revenue bond issues to other states, identical with the South Carolina issue, and expected to be paid when the money was due. Dr. Foreman refused to agree that the state had specifically restricted the security to the revenues from the bonds. It is a state debt and must be paid by the state when due.

The writer at this point will suggest that South Carolina will be terribly, terribly hurt when this bill is presented.

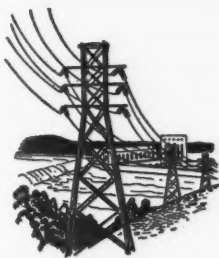
THE "careful survey" referred to above has never been reduced to anything more tangible than an aspira-

tion, so far as I know. In recent issues of the *News and Courier* of Charleston, which is not only the leading newspaper of South Carolina but ranks high editorially through the South, I have found various acid comments on the fact that so far as the *News and Courier* knew at the time of editorializing, no firm offer to buy power has been made by any potentially important power user. There have been nebulous reports of nameless companies which might buy power, but no contracts had been signed at the time of writing. The *News and Courier* has repeatedly commented on the modest reticence shown by Senator "Jimmy" Byrnes and governor of late about the Santee-Cooper project. The editor suggests that the less said about it the less trouble these gentlemen will have with the rest of South Carolina when the time comes to nominate candidates for high office. The editor certainly knows more about these matters than I do. This is not an inquiry into South Carolina's politics. Editor Ball goes on to suggest that the various state employees of the project might well invest 10 per cent of their salaries in bond purchases.

NO other state has entered into a similar arrangement with the Federal government. Up to date it seems that all the money has been put in by Washington, but a state authority was created with the presumptive right to direct operations. The salaries paid to the salaried folk in the authority amount to \$316,000 annually. How much other money goes to the authority I have no means of knowing. One South Carolina lawyer presented a bill for \$183,000 worth of legal services, but in the tumult that immediately fol-

State to Receive Profit

"I*F Santee-Cooper should make a profit, that profit goes to the state. When it is completed it will be turned over by the Federal folks to the South Carolina Public Service Authority for operation. The PSA has built up an annual salary list of \$316,000 during the period of construction, . . . It continues to be the fact, however, that the Federal people are making the plans, supervising the work, and governing the expenditures."*



lowed the presentation, the bill was cut to \$57,000. The writer assumes that the services were worth the sum as originally stated and that the combined Federal forces of the PWA and the WPA were unreasonably picayune in reducing it to the figure at which settlement was made. At least one person in the state no doubt regrets this reduction—one other than the lawyer—for in a statement to the newspapers he made it clear that he still regards the No'th as his enemy and thinks of the Santee-Cooper project as one means of getting back some part of what South Carolina lost because of the Civil War. But there is nothing to be done about it.

the pay for the average weekly hours, the workmen receive only about \$6 for swamping.

CHARGES were investigated by the South Carolina senate that the project was being extravagantly and inefficiently managed. This writer can only record the fact without prejudice. Something like 200,000 acres were bought for clearance for the two great reservoirs which are to impound the waters of the Santee and its tributaries. Some of these acres were in the most dismal swamp that can be imagined. Four Hole Swamp and Hell Hole Swamp furnish sufficient definition merely by their names. Other acres were covered with magnificent timber and in the purchase it seems the authority lost \$450,000 on resale to sawmillers. Other acres were embraced in farms and plantations and might average a \$50 valuation, this depending on how well they had been kept up.

One plantation was condemned at \$100,000, and its owner said then and continues to say now that he would not have taken twice that sum for it. Sentiment entered into the bargaining in many instances, for the families of some of the owners lived on their

THE PWA and the WPA have been in control of the situation because they control the finances. They, as stated in the plaintive sentence previously quoted, "review all expenditures." So far as can be discovered they review these expenditures efficiently. Construction contracts seem to have been let in open competition, and although the white and Negro workmen on the works are paid 40 cents an hour—which is extremely high for the swamp country—when the charges for board and laundry have been subtracted from

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plantations when the Revolutionary War was at its height. It was hereabouts that the "Swamp Fox" operated against the British. Until one sees these Carolina swamps one cannot appreciate the heroism of Marion and his men. Maybe Americans have "gone soft," as President Roosevelt said the other day, but they were not soft in those days.

AT any event the investigation by the South Carolina senate was dropped. Perhaps the charges were not well backed, but the fact is that it seems to have dawned on the senators that all the money involved was Federal money and all the bossing was Federal bossing, and all of whatever inefficiency there might have been was Federal inefficiency. It is true that the state authority with its \$316,000 worth of salaried men did a great deal of leg work, but the Federal men either ok'd or turned down all the agreements entered into. At one time agents from the TVA were brought into the state to check on the \$316,000 worth of South Carolina's men, and at another time land appraisers employed by the Federal Land Banks were on the job. They seem to have taken a less feverish view of swamp land values than did the home-raised appraisers. The courts seem to have supported the land value estimates made by the furriners. It is not suggested that the state authority's employees were anything short of excellent, but it is obvious that the senate of the state of South Carolina would run into considerable trouble if it attempted seriously to investigate the Federal WPA and PWA. It simply could not be done. After a few futile days of back-chatting the investigation

was dropped. The lower house of the general assembly was asked by several of its more discontented members to make an investigation on its own, but nothing was done about it. Nothing could be done about it. In any case the politicians did not think it was really bright to bite the Federal hand that fed them. Another editorial from the *Charleston News and Courier* (Democratic) seems pertinent at this point:

Reduce the Federal officers by two-thirds, end "relief," abolish WPA, stop work on Santee-Cooper, suspend the Federal subsidies, devote the money saved to the national defense, and the popularity of Mr. Roosevelt and Senator Byrnes and of the entire New Deal would not last thirty days in South Carolina.

EDITOR Ball knows his own people better than I do, and therefore I shall not suggest that if the Santee-Cooper project proves to be a complete financial flop the state would put its hand into its pocket to make good on the \$18,865,000 of "self-liquidating revenue bonds" put up by the state as security for a Federal loan of the same amount. That loan is secured solely by a lien on any future profit the project may make. In the meantime it appears that \$45,785,000 of Federal money has been put into it—and not a dime of state money—and when I visited the project recently the informal estimate is that it is about one-third completed. Certainly it does not look to be more than one-third completed, to the amateur eye. It must be admitted that this is pretty good for a scheme once valued at \$12,000,000 and even at that mark-down figure considered "fantastic" by cold-blooded engineers at Washington. (Note. Since this was written the total of the Federal investment has risen to \$49,000,000. No one can say to what lovely heights it may rise. Dr. Clark

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Foreman says no more money will be needed to complete it. Dr. Foreman is—shall we say?—a bit rancorous when this question is asked.)

Bear in mind that this is the Federal baby.

If Santee-Cooper should make a profit, that profit goes to the state. When it is completed it will be turned over by the Federal folks to the South Carolina Public Service Authority for operation. The PSA has built up an annual salary list of \$316,000 during the period of construction, and no doubt will be expressed by this writer that the money has been well spent. It continues to be the fact, however, that the Federal people are making the plans, supervising the work, and governing the expenditures. When the project is completed it will be able to produce, according to the official statement,

An annual generating capacity during a year of average stream flow of 700,000,000 kilowatt hours, of which 450,000,000 will be prime and 250,000,000 will be secondary.

If the Santee-Cooper project, once it is in state hands, loses instead of makes money, a fair assumption is that one of four things will happen:

1. The Federal government will be asked to stand the annual deficit;

2. The state of South Carolina will be overcome by generosity and will revoke its statutory refusal to put a dollar in it or stand a nickel's worth of

loss, and will squeeze that deficit out of its tax-paying citizens;

3. The state will walk away, dusting off its hands, and leave the project to the cottonmouths and deer; or

4. The Federal government as in the case of TVA will take over privately owned power companies and use them as outlets. The principal companies in the territory are the South Carolina Power Company at Charleston (Commonwealth & Southern), Duke Power Company with headquarters at Charlotte, and South Carolina Electric & Gas Company. Governor Maybank has been reported dickering with the trustees of Associated Gas & Electric for buying out the last-named subsidiary property. This would provide a much needed distribution outlet if it could be arranged, although it is not clear just whose money would be used to make the purchase.

Completion is promised for the summer of 1941. Engineering opinion is that it may be ready by the autumn of 1942. An effort is being made now to represent Santee-Cooper as vital to the scheme of national defense, by which means more millions may be tempted out of Washington. It is entirely possible, of course, that Washington may rule that the millions might better be used more directly in the national defense, and Santee-Cooper may be permitted to vegetate until millions



Q "SOME of the wood-working establishments will be driven out [by the Santee-Cooper project] and others crippled by the project's flooding of the best stands of timber. In any case the woodworkers use steam in their drying operations, and with the surplus can actually produce electricity and sell it to the power companies at a price that affords both seller and buyer a profit."

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can be had directly from taxation rather than from borrowing. That, of course, is pure surmise. It is possible, however, to examine with some care the possibilities of profitable business.

ASIDE from the furnishing of wholesale blocks of supply to now existing utilities, there is no considerable sale of power in prospect, so far as has been announced by the PSA. A \$10,000-a-year booster, complete with office help, has been on the job, but he has not yet been able to sell any power worth mentioning. For this various explanations may be cited offhand. The few textile factories in the near vicinity have not been so abundantly prosperous that other textile factory owners have been tempted to move in. Labor of a rather high standard of intelligence is required to operate the looms, and Negro labor will definitely not do. Some of the wood-working establishments will be driven out and others crippled by the project's flooding of the best stands of timber. In any case the woodworkers use steam in their drying operations, and with the surplus can actually produce electricity and sell it to the power companies at a price that affords both seller and buyer a profit. There are a few deposits of excellent limestone, but not enough to keep a \$100,000,000 power plant busy.

No statement has been made that any other industry will find in the Santee-Cooper area the conjunction of cheap power, raw materials, easy transportation, and good markets. By that I mean that no names have been named or figures cited. Such industries may be found. This writer can only say that when he visited the project no such industry had been

identified. There may be an extension of REA activities. The fact seems to be, however, that in the old rice plantation country, in which the magnificent befo'-de-wah plantation houses have been bought up and made sound again by rich men from the North who can afford to hunt ducks at the average cost of \$10 a duck, the houses which have been electrified have their Diesel plants to thwart off-season "short-circuits."

THE Negroes of the district practically touch no money from one year's end to another. They garden a little, fish a little, hunt and trap a little, sing superbly at their little churches in the swamp—which will be flooded out—sit in the sun and enjoy life. They do not even screen their shacks against mosquitoes. The idea that they will buy electricity is mere moonshine. There are moonshiners in the swamps, but it is evident that they would not equip their stills with electric lights. The plantation owners who have held on to their places by the exercise of the most extraordinary courage and determination will have been evicted. This writer does not wish to be wholly discouraging. It may be the state PSA will find a sale for its juice. He can only say that there is no evidence of that prospective sale as yet.

The navigation feature of the project?

A more tender-hearted man would not mention it at all. The lift in the power house lock will be 75 feet. Two canals, totaling 12½ miles and from 200 to 300 feet in width, will connect the Cooper and the Santee rivers through the two reservoirs, or lakes, the Santee and the Pinopolis, which will cover an area of 250 square miles.

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Possibility of Navigation

“To make navigation possible, works must be constructed at the exit into the Cooper and the entrance from the Santee. The Santee must be dredged and snagged and—before anyone need worry about running boats from Charleston to Columbia—the Congaree river must have the snags lifted out of its bottom from its junction with the Santee all the way to Columbia. Army Engineers say it can be done. That is all they have said at present. If it can be done, the Army Engineers can do it.”

The canals will have an average minimum depth of 10 feet. The Santee is swift, full bodied, and laden with silt. Precisely how the canals and the reservoirs will be kept from silting up is a matter to which no attention is being given at present. To make navigation possible, works must be constructed at the exit into the Cooper and the entrance from the Santee. The Santee must be dredged and snagged and—before anyone need worry about running boats from Charleston to Columbia—the Congaree river must have the snags lifted out of its bottom from its junction with the Santee all the way to Columbia.

Army Engineers say it can be done. That is all they have said at present. If it can be done the Army Engineers can do it.

But why?

THERE simply is not the business for boats that might be taken up the Cooper, through the reservoirs, through the canals, into the Santee, and up the Congaree. This is beyond question too bad, but there it is. The boosters for the Santee-Cooper project say the business will be found. They have not yet said what business or where it will be found. If they found the business, it must still be remembered that the concrete roads between Charleston and Columbia are perfect. The railroads drove the old Santee canal out of business and the trucks are gradually getting more and more business from the railroads between South Carolina's chief port and its capital. Water transportation means delays, troubles, transshipping, and ultimately loading cargoes into trucks. A truck could beat a boat from Charleston to

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Columbia by approximately a week and handle freight at less cost.

Let us forget the navigation end of the Santee-Cooper project. It is, of course, possible that pleasure excursions in motor boats might run up the Santee now and then to have a look at the alligators. About the only promise left to be examined is that the project will control floods. Maybe it will. This writer does not presume to state. But it should be noted that the floods of the past merely ran off into the swamps, which are full of water anyhow. No harm was done. What farming was done was on the higher land, untouched by the floods. Some of this higher land, however, will be covered by the Santee-Cooper's gathered waters. The net result appears to be that

arable land will be destroyed that the floods never touched.

BIOLICAL survey authorities will tell the inquirer that the harm done the wild life of the Santee swamps will amount to wholesale murder. Other biological authorities will tell the inquirer precisely the reverse. It has been noted in murder trials that experts can always be hired to speak up bravely for dementia praecox or against it.

This writer does not know which set of experts to believe about Santee's game and prefers to turn his thoughts to higher things.

One of the higher things is the ultimate cost to the Federal government of the Santee-Cooper project.

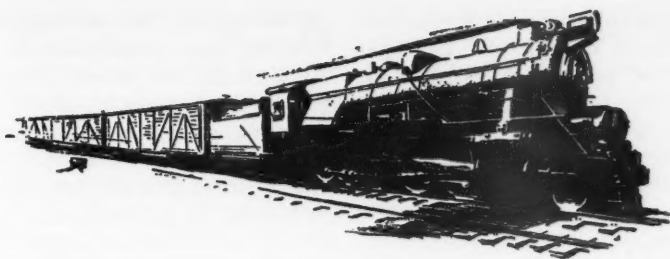


Futility of the Theoretical Yardstick

“It is a fanciful idea that there is any single ‘yardstick’ for electric light and power rates. As for hydroelectric plants, wherein capital investment is a prime influence on rates, the yardstick idea presumes that the same amount of cement will dam any stream anywhere and produce the same power head; that cement can be transported and mixed and poured at a yardstick price no matter where; that impounded waters cause no more damage in one place than another; that all power dams are equidistant from main points of current distribution; that rights of way for transmission lines cost no more in settled lands than in the desert; that labor and material costs do not change from year to year; that standards of transmission and distribution construction are uniform; that interest rates on borrowed money are identical in all projects; that all utilities pay the same taxes in proportion to physical value, and in franchise charges—and so on more or less interminably.

“So long as a debt charge for construction costs enters into the rate structure there is no more a yardstick for measuring cost of producing electricity than there is for measuring the cost of growing wheat or the cost of building highways.”

—EDITORIAL STATEMENT,
Portland Oregonian.



Mobilizing Transportation For Defense

The keynote of all national communication preparedness today, says the author, is speed in rail service, in the air, and over the roads.

By T. N. SANDIFER

WHILE the national defense machine is being geared toward a state of readiness just short of actual war demands, there comes the reminder that no country is stronger than its communications. Those communications, including now a transportation system never hitherto tried in a national emergency, are about to be put to the crucial test once again, for the second time in less than a quarter-century.

In the first eight months of World War I, this country's railroad system moved more than 2,000,000 troops between military posts, cantonments, and to mobilization centers, the Mexican border and the Atlantic ports that were the last stop before France. This was not their only function; in 1917 the same roads carried more freight and passengers than in any previous year.

With mobilization of the National Guard decreed, and with a draft under

way that equals the proportions of the first World War era, and with other emergency demands already in evidence, the railroads are preparing once more to attempt the extraordinary.

It is unlikely, however, that their efforts will be hampered, as they were in 1917, by the fact that up to one-fourth of the roads' car capacity was tied up for weeks or months by such doings as the shipment of carloads of anchors to say the Hog Island shipyard, before that yard had laid the keels of the ships for which the anchors were intended.

That actually happened. Also, it is a matter of record, more than 5,000 carloads of piling, intended for the same yard, were kept standing because of inability of the authorities to handle these forehanded shipments. At one time, more than 200,000 loaded cars were kept standing on the rails by such operations.

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No cars will be used for storage, as these were, in this period. Through their central body, the Association of American Railroads, it is believed today that steps sufficient to prevent any recurrence of such conditions have been taken by the roads.

SPACE does not permit the details of these steps, most of which are familiar to railroad executives, but the effectiveness of one major provision, the Port Traffic Control plan, has been demonstrated and the results are particularly applicable to this discussion.

This plan was inaugurated in November, 1939, through coöperative action of the railroads, at New York, with a manager of port traffic. The plan contemplates that whenever similar control is indicated for any one of the Atlantic ports, it will be extended to control all, since conditions leading to congestion at one are likely to involve all.

This step has resulted in the fact that in 1940, with greater traffic moving through the ports concerned than in 1918, no congestion resulted at all; whereas in 1918 congestion was widespread, with permits outstanding for 16,798 cars. The railroads, through their central agencies, have estimated their problem in advance this time, and face it with confidence, as indicated by the views expressed by various road spokesmen.

In passing, it might be mentioned that M. J. Gormley, executive assistant of the association, recalled that he had attempted at various times to get these data from the War Department, where, it would seem, such logistics would appear to be on hand as a matter of course, but he had no success.

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ABBREVIATING the calculations utilized to arrive at the result, it was estimated that the increased burden to be anticipated is only about 12 per cent of the total commercial load. For comparison, it has been found, this 12 per cent is not equal to the jump in traffic incident to change from season to season, or even from year to year, and, in the words of Mr. Gormley, "does not present a problem of any magnitude, providing such traffic movement is under proper control" to prevent a repetition of the first World War practice of using cars for storage. There was a jump of 55 per cent in the carloadings recorded between May, 1939, and October, that year, a record increase for such a period of time.

Nevertheless, the outlook of the railroads, like that of other vital national defense utilities, is definitely bordered by the current military program, and perhaps more than in any other case is this true of that other transportation system mentioned at the start, as hitherto untried in a national emergency.

The commercial airlines operating over the United States have, in an incredibly short period, developed the fastest, most efficient air communications for important passengers and cargo of any in the world. By a curious anomaly, however, these commercial lines, developing strictly for peaceful purposes, constitute one of the most vital military resources in the entire category of the nation's arms.

IT is credibly reported that the Army's plans for hemisphere defense contemplate the acquisition of some 500 4-engined transport planes of the general type of the "Fly-

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ing Fortress" equipped for stratosphere altitude flying, and carrying each about twenty heavily equipped troops besides the normal crew. This plan, it is further reported, calls for an additional 300 twin-engined transports, carrying a small number of troops, but altogether comprising a formidable air transportation facility.

The principal difficulty is that, according to schedule, these big planes will not be available before 1943. In the meantime, in place of this grandiose program, what the country actually has is its commercial air transport fleet, 322 big planes similar in type and capacity to what the Army intends buying. And, already, behind the scenes the discussion is in progress as to how far this resource will be utilized.

The proposals vary from the extreme suggestion that the planes and their pilots be made immediately available to the armed forces, to others that commercial expansion be limited for the emergency; that is, that their equipment and present routes be "frozen" or that a percentage of planes and pilots be called to military service.

To appreciate the effect of such suggestions it is necessary to recall that the airlines in general are in an unprecedented expansion stage. It is reliably estimated that various lines would like to add, as early as possible, a total of some 100 of a larger type of

passenger and cargo-carrying airplane, and in fact most of the major airlines have ordered for 1941 aircraft of approximately twice the passenger capacity of those in general use now. Also, there are pending at this writing about 100 applications for extensions of service.

DESPITE a phenomenal increase in air traffic this past year, the airlines are confronted with a realization that their passenger business tends to grow almost with each additional seat available, or service extended. What this means in relation to defense is best expressed in the statement of Colonel Edgar Gorrell, president of the Air Transport Association. He said, in effect, that this transport fleet in commerce today is the equivalent of 35 to 40 military transport squadrons, which, if the Army had to maintain them, would cost the War Department appropriations about \$50,000,000 annually. Instead, Colonel Gorrell demonstrated, this huge reserve, invaluable now with the Army's planes "on order" for 1943, costs about \$400,000 per year.

There are figures to show that it will cost the country even less in time to come. Contrary to what might be a widespread popular notion that the air-mail subsidy is paying for all these planes and, consequently, the govern-



Q "In the first eight months of World War I, this country's railroad system moved more than 2,000,000 troops between military posts, cantonments, and to mobilization centers, the Mexican border and the Atlantic ports that were the last stop before France. This was not their only function; in 1917 the same roads carried more freight and passengers than in any previous year."

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ment would be taking no drastic step in calling them in, this commercial air fleet has been largely, and is increasingly, being paid for by passenger fares and other private revenue.

The \$400,000 represents the mail subsidy payments, but in addition to the reserve of transportation thus created with such a proportionately small contribution from the government, the air transport services hold within their organizations some 1,200 or more of the finest long-range navigation experts and pilots to be found anywhere, of whom a majority, perhaps 75 per cent, are graduates of the Army or Navy aviation training systems. Many hold reserve commissions.

These veteran pilots already are making their unique experience available to the military services; some 850 aviation cadets are being trained by Pan American Airways, for instance, in long-range navigation and handling of big transocean aircraft, while it is possible to assign other Army personnel as observers to airplanes in actual commercial operation for training purposes.

It is generally known in the transportation field, probably, that the commercial airlines have been giving a limited emergency service already; that in a given six months' period of the past year, the Army, for instance, has utilized the commercial airways for fast transportation of important personnel across the continent, and elsewhere, to a greater extent than in the preceding decade.

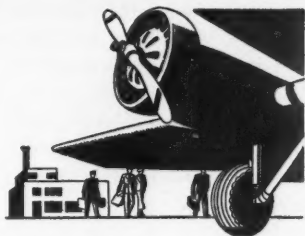
Thus, the armies in the field, if need arises, may no longer be forced to place the burden of communications solely on water and rail transportation and,

in certain cases, the tempo of actual military operations as demonstrated abroad in recent months might preclude their doing so; assuming, for instance, a fast emergency move by air of advanced shock units, backed by armored divisions. The air transport is calculated to furnish a speed of 140 miles per hour, where a freight train, heavily loaded, might give slightly better than 16 miles per hour.

Here, then, is a third transportation system, not to mention besides water and rail, motorbus and truck, which likewise constitute relatively new developments. The purpose of the Army in seeking large numbers of big transport planes would be primarily to use them as a fast line of communication over extended ranges of operations.

HERE, incidentally, is probably where the commercial airlines would find their real mission, if emergency necessitated their being utilized. For, it is perhaps unnecessary to state, the probabilities that airline crews would be put in military uniform, and their planes converted to primarily military use, are, in the opinion of informed officials, not greater than a similar chance for the railroads or other transportation mediums in emergency. In a dire situation anything can happen, but whether anything of the sort is even on the horizon is debatable.

What is regarded as most likely, in certain contingencies, is that the air transport system would join the service of behind-the-lines communications, as troop and cargo carriers. Whether any such step would ever reach the length of shutting off, or even severely curtailing, regular commercial air transport is another debatable issue.



Operation of Commercial Airlines

“THE commercial airlines operating over the United States have, in an incredibly short period, developed the fastest, most efficient air communications for important passengers and cargo of any in the world. By a curious anomaly, however, these commercial lines, developing strictly for peaceful purposes, constitute one of the most vital military resources in the entire category of the nation's arms.”

There are those who can contend with considerable force that aviation service is as much a vital commercial necessity, under any conditions, as railroads or other communications. At most, they might argue, some schedule of priorities might prevail.

Without intending to draw comparisons, the defense and other national requirements involving the merchant marine contemplate an annual expenditure by the government of some \$30,000,000, whether or not this figure is adhered to under current conditions.

THE defense requirements of the nation today enter into consideration of maritime developments in the influence these requirements have on design and other characteristics—for example, the convertibility of certain otherwise peaceful-looking merchant vessels built or building for the American flag, into auxiliary naval vessels,

even aircraft carriers. Tankers, of course, are vital to naval service, hence, as in the air, the demand for speedier types of surface vessels.

In fact, the keynote of all national communications preparedness today, for possible emergency use, is speed in rail service, in the air, and over the roads. And, since airplanes are the essence of speed, the impact of emergency is most likely to be felt in their direction rather than, as in the first World War, upon the railroads. The airlines in fact already have certain special problems which may not be so familiar as those of the more established utilities. They may not get delivery of all commercial planes on order, under certain conditions.

In this connection there have been assurances that the essential requirements of the airline companies would be considered in any priorities that might be ordained.

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While the problem will be a common one from now on, the airlines feel particularly the competition with the armed services for pilots and maintenance men.

THE airlines will experience increasing difficulty, if not the impossibility, of drawing expert personnel away from the services as formerly, and may even lose some of their own in given circumstances.

Conversely, in this connection, any post-war let-down on the military side will mean larger and better planes at probably less cost, and an abundance of skilled maintenance material in manpower, besides, of course, the finest possible pilot material from the services or the various training programs. This might naturally stimulate exten-

sion of various routes and services.

Meanwhile the airline executives have been cheered up to now by assurances that the government was properly concerned for their welfare, and that nothing short of genuine need should be permitted to interfere with their orderly operation and even development.

The airlines' position might be summed up by paraphrasing what one major manufacturer said recently:

"Our airlines have perfected the fastest, most efficient scheduled communications the world has ever known. Because this system is integrated with and best serves the economy we must defend, it should be accelerated in time of emergency. Only through expansion can this bulwark of defense be improved."



Home Telephone Books Please Copy

ONE of a host of draft registration stories going the rounds these days has a decided telephone aspect. Seems a registrar in Buffalo, New York, was filling out the usual form for a young gentleman, apparently of Polish extraction, who gave the "New York Telephone Company" as the party who would always know where he might be located.

When asked if that were his employer, it turned out that the New York Telephone Company was neither his employer nor any relation—by blood, marriage, or otherwise. Pressed for an explanation, the young man appeared to be quite surprised that his confidante should be questioned. "The telephone company," he said simply, "always knows where everybody is, especially when they have moved; that is the way I always find out about somebody who has moved around."



Selection of Employees for Good Public Relations

The public's attitude toward a utility organization is based largely on customer contacts with a few employees, like the trouble shooter and complaint adjuster. With a temperament test, it is said, a better selection can be made of these people, on ability to get along with others and create friendly feeling. Description of the temperament test, and "specifications" for efficient contact employees.

AS REPORTED TO JAMES H. COLLINS BY
DR. DONCASTER G. HUMM

THE Humm-Wadsworth temperament scale has now been in use about eleven years, by business concerns widely diversified and scattered over the country, having from as many as 15,000 employees to as few as 10.

It is a test method used both for hiring new employees and for securing information about old employees, useful in promotions and changes of work.

In its operations, it is simple.

The job applicant is asked to sit down and mark Yes or No opposite 318 questions, such as "Do you like to study music?"

From his answers, a "profile" is plotted, which gives an index to his temperament that is useful in many ways.

No business concern seriously adapting the method to its employment prob-

lems has discontinued its use, and to date more than a half-million persons have been tested.

In one large manufacturing concern, strongly unionized, this test was regarded with suspicion by labor leaders when first introduced. But after some weeks of watching its results, one of the labor leaders said, "We are for it, because it's just as important for us to keep screwballs out of our organization as it is for the company."

For everyday business purposes, the method measures the individual's disposition, mental health, and ability to get along with others in the kind of work to which he is assigned. The scale is susceptible of widely different applications.

A tool maker of acknowledged skill, and proved experience, might be a "screwball" when it came to getting

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along with shop mates in a tool department. His crankiness and stubbornness would be a negative factor far outweighing his mechanical ability. If hired on skill and experience, he would probably have to be let out later. There have been numerous cases in which such an individual, shown in advance to be a trouble maker by his "profile," has been put to work with unhappy results. In other cases, a check-up on such an individual has revealed a criminal record of violence.

But the same "profile" in a crack baseball player, or a talented concert pianist, might not be so objectionable, since in these occupations, management generally undertakes to handle eccentricities.

In a labor union, such a "screwball" is likely to become a disturber, challenging policies developed by sensible leaders, raising difficulties in the orderly working of contracts, and perhaps agitating for power by winning over numbers of those members, found in every type of organization, who are easily swayed through their suggestibility.

ABILITY to understand human nature and predict what the individual is likely to do has been sought for ages.

The scale measures a half-dozen components of human nature that have been proved basic in psychiatry and psychology. None of these components is either "good" or "bad," because it is the balance between them that determines an individual's suitability for a given kind of work. On this basis, the method has been widely useful in business.

Utility organizations are among

those using it, and one of the first applications of the method was by a large utility company, seeking a way to deal with its accident and failure problems.

The six components measured, given below, bear rather startling names, but it has been found necessary to use these scientific terms, because no satisfactory substitutes have been found:

Hysteroid, or self-preservation.

Cycloid Manic, or self-encouragement.

Cycloid Depressive, which may manifest as worry, gloom, or caution.

Schizoid (pronounced "skitzoid") Autistic, the day-dreaming quality, which may manifest as idealization.

Schizoid Paranoid, or stubbornness, loyalty to a cause.

Epileptoid, or persistence, inspiration, patience in working at projects.

IN interpreting results, these components are referred to by letter, as H, M, D, A, P, and E, and they are all supplemented and conditioned by the seventh component of Normal, or N, which is self-control and temperamental balance.

This test was based on the theory of Dr. A. J. Rosanoff, formerly a New York psychiatrist, now California State Director of Institutions, with whom the senior author of the temperament scale worked five years.

Rosanoff arrived at the important conclusion that insane behavior arises from temperament factors out of control; the sane have the same factors under control; the difference is a matter of N.

Using the H-W scale to test old utility employees, it was found that an individual with high M and low N usually had an accident record, if his job gave any opportunities for accidents. If he had figured in motor accidents, as a

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truck driver, and had been transferred to shop work, he continued to have accidents.

The reason for such accident proneness is emotional instability, which leads to a tendency to go to pieces under pressure.

If the same general profile shows up among new job applicants, it is a warning to place the individual where he cannot do damage—there are numerous kinds of work in which such a temperament will be safe, productive, and happy.

FOR failures in the diversified work of a utility organization, such as frequent mistakes, inability to turn out a fair standard of work, lack of judgment, and so on, the tests showed the cycloid component (M-D) high, indicating an individual whose impulsive nature leads him to many inconsidered actions. In addition, he is likely to be impatient with details, and neglect necessary precautions. When this is combined with poor control, the cycloid is the prey of his emotions, and is likely to get overexcited or scared to the point that he does the wrong thing.

Temperament was found to be the cause of trouble and failure in 80 per cent of utility employees. Lack of intelligence, so likely to be blamed, was

responsible for only 6 per cent. Lack of skill ran to 6 per cent, and health handicaps were responsible for 6 per cent, leaving only 2 per cent of minor causes. Such results, of course, point strongly in the direction of the real difficulty, and give a clue to cures and prevention.

Temperament and intelligence tests (the H-W scale is always used in connection with an IQ test) can be combined to build good public relations for utility organizations, both through the hiring of new employees and the assigning of old employees to different jobs.

Relatively few employees of a utility company have direct dealings with the public, but the few who do meet the customers are in position to make either friends or enemies.

THE trouble shooter, the complaint adjuster, the bill collector, meter reader, office clerk, switchboard operator, trainmen—it is this oddly assorted group of employees who, in the public eye, overshadow all the technicians who keep the service going.

Your own wife probably has no idea that there are ten times more people back of service than the few she has talked with about the bills or the meter—ask her!

To the public, this group of em-



Q "TEMPERAMENT was found to be the cause of trouble and failure in 80 per cent of utility employees. Lack of intelligence, so likely to be blamed, was responsible for only 6 per cent. Lack of skill ran to 6 per cent, and health handicaps were responsible for 6 per cent, leaving only 2 per cent of minor causes. Such results, of course, point strongly in the direction of the real difficulty, and give a clue to cures and prevention."

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ployees stands for the company, and it is important to have those duties carried on by individuals who will reflect credit on the company.

By sensible use of tests, it is possible, at the time of first hiring, to select beginners who will have combinations of temperamental traits that make for pleasant dealings with people.

There is value in the negative side, too—tests can reveal those who lack such traits and would be unpleasant and unhappy in a contact job, so they can be eliminated before given a trial and training.

The contact employees in the rough are recognized by their temperament scale profiles, which give quantitative pointer readings of desired and undesired traits for the given work to be performed.

All employees who are to meet the public in any way should be selected for high N, or Normal, which indicates a dependable degree of self-control and mental stability.

ALL of the traits which make up N are associated with self-control—such as tact, poise, stability of mind, balance, sanity, self-restraint, conservatism, self-mastery.

High N, if associated with some other strong component, indicates an individual who not only rules himself, but finds great satisfaction in so doing, and governing his desires, his emotions, and his urges. If he discovers a weakness in himself, he is almost glad of another opportunity for self-discipline. He hates to let himself go, and feels ashamed when he even comes near to allowing himself get out of hand.

There is a great group of individuals

who are strongly N, but also show another component strongly. They too have poise, tact, self-restraint, and the other traits associated with self-control, plus the sparkle which comes from a rich emotional life, a fine imagination, or other equally important traits.

Other people like to deal with them, recognize them as thoroughly reliable, feel that there must be fairness and justice in the organization that employs them.

None of the contact employees should have high H, for the Hysteroid is likely to be a "smart" dealer, and has a tendency to crooked dealing when the circumstances are favorable.

HIGH H unbalanced by strong N is often labeled a "crook" by others, even when his record is clear of conviction. This comes of his selfishness, which is so much in evidence at all times that he lacks real friends.

Yet, strangely enough, his tendency is to surround himself with cronies upon whose loyalty he makes excessive demands. He is jealous, fearful of treachery, and the "double cross" is one of the most frequent manifestations among individuals of this type.

If circumstances place him where he becomes confident that honesty is the best policy, his behavior may improve. But there must usually be some influence outside himself, constantly exerted, and obviously a contact job is not the place to attempt to bring out his better traits.

None of the contact employees should have high P, since the Paranoid is distinguished for his stubbornness, bitterness, lack of tact.

Among psychologists there is a saying, "You can tell a paranoid—but



The Temperament Scale

"THE Humm-Wadsworth temperament scale has now been in use about eleven years, by business concerns widely diversified and scattered over the country, having from as many as 15,000 employees to as few as 10. It is a test method used both for hiring new employees and for securing information about old employees, useful in promotions and changes of work."

you cannot tell him much." He is so strongly fixed in his thinking that he cannot be persuaded to recognize his mistakes. He often builds up in his mind systems of queer, unreal, and false conclusions, to the point where they become delusions, and defends these systems with great vigor.

His very stubbornness makes him valuable when a cause is to be pushed through against opposition, but his greatest problem is getting along with people, for he often offends them without meaning to in the pursuit of his ideas, and so will be more useful in work where it is not necessary to "win friends and influence people."

CONTACT employees should not have high A, since the Autistic is bashful, and does not easily make social contacts.

The basis of this component is a heightened imagination, sometimes becoming so strong as to result in a day-dream life, so filled with wish-fulfil-

ment thinking and other fantasy, that the individual escapes partially or completely from reality.

The effect of daydreaming is to make him impractical. He is sensitive about his day-dream life, feels that he is different from others. To escape conflict, he often appears docile, responding readily to requests and commands. But underneath he is usually passively stubborn. His anger is seldom open and aboveboard. He is most likely to give it expression in some sly trick.

When balanced by another trait, and willing to make an adjustment to reality, the autistic individual may be very successful, for his rich imagination is then an asset. He may distinguish himself as an inventor, research worker, musician, artist, poet, or some such person in whom controlled ideation is a servant.

In contact employees, the temperamental equation is most important.

The desk clerk at a branch office, re-

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ceiving customers with complaints, will probably need no special skills for that particular duty, but must be possessed of marked tolerance and patience with disgruntled persons. Likewise, the car inspector, who checks fares and running time on a transportation system, needs great firmness without bitterness, rather than special skills.

OTHER contact employees need good temperamental balance, with high average intelligence, and special skills, to be determined by other tests.

The "trouble shooter" must be a good mechanic plus. Not every good shop mechanic has the temperamental qualities needed in dealing with people, and the "trouble shooter" has to combine the ability to locate and fix diversified mechanical troubles, with the cheerfulness and tact of a "good mixer."

The meter reader must be quick and accurate in handling figures, the switchboard operator possessed of a pleasant voice, and so on—all matters of measurement by aptitude and intelligence tests.

Temperament scale measurements do not reduce people to formulas.

They greatly help in selection, but do not make it possible to "write a ticket" for so many trouble shooters or complaint adjusters.

They do give a good appraisal of the individual's dominant traits. That is something to build upon, and something that represents real money value to start with—the possibility of rejecting obvious misfits before time and money have been wasted in trial employment and training.

The original objective of the Humm-Wadsworth scale was to give a method

of measurement, using the latest knowledge of the psychiatrist, whereby psychopathic or mentally unstable traits could be diagnosed in job applicants. The need for such a method was emphasized by a murder by a problem employee who was afterwards found insane.

THE scientific basis for the scale has since been broadened, and may be stated thus:

Temperament reveals the individual's tendencies to react to his surroundings—or his habits of behavior.

If a person usually responds in the same manner to a given situation, he is said to be in possession of a trait.

Since habit making is strong in everyone, we all have an abundance of these traits. Taken together, they make up our temperament, or disposition. Some of them are the results of inheritance, and some of them the results of experience.

These traits tend to occur in groups.

If a person is highly excitable, he is also likely to be highly emotional, to be overactive, and to be possessed of poor powers of concentration.

On the other hand, a person who is shy is likely also to be a great day-dreamer, to be impractical, and to be possessed of odd ways of doing things, called "mannerisms."

With a temperament scale, outstanding groups of traits can be appraised and studied as the building blocks out of which the structure of our dispositions is made.

These traits are assets to the great majority of individuals, because, fortunately, they are controlled by the checks and balances of a fairly well-rounded disposition.

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They become liabilities only when out of balance, and even the principal balance wheel of the Normal, or N, if in excess, makes an individual so over-controlled that he is dull, conservative, unprogressive.

THE traits are also susceptible of change, so that a job hunter hired today for, say, complaint adjustment work, may in a year have developed the temperamental assets that landed him the job to such an extent that he is fit material for an executive position.

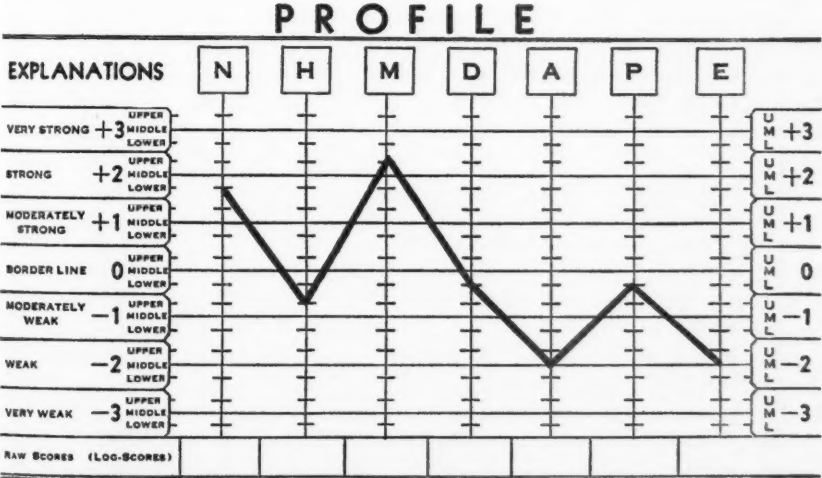
Again, such an applicant may have lacked the patience and social qualities necessary for complaint work, but will have learned what are his liabilities and set about reducing them, and in a year will be found qualified, if re-measured.

It is well known that men and women develop ability to do more efficiently the work they like. Experience teaches them to do it better, helped by the rewards that come with success, which may be monetary, but are always sure to be rewards in satisfaction.

Such growth in a given field of work largely represents recognition of one's desirable and undesirable traits, and cultivation of one group, with elimination of others.

Repeated measurements of the same individual sometimes show striking changes in the temperamental profile, and these are, of course, most valuable in considering promotions, and transfers to other kinds of work.

After business concerns have used the temperament scale for a time, it soon becomes the practice to start all



Assers: Strong self-control and mental stability; sufficient selfishness to guard his own and the company's interest; strong Manic tendencies (sociability, alertness, cheerfulness, activity, and drive); no deficiencies in any dynamic component of temperament; persistence, and stability of opinion without stubbornness (P).

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transfers and promotions with re-measurements, and remeasurements also indicate employees who have developed in themselves traits that point to promotions and transfers, to jobs in which they will be more efficient. For example, a good mechanic or routine worker, after experience in the organization, may have so adjusted himself to the work, and to his associates, that he is temperamentally qualified for supervision.

TESTING by the temperament scale does not entirely eliminate the interview, although it somewhat modifies the methods of hiring commonly followed where no tests are given.

The same background of working experience, education, previous jobs, citizenship, financial circumstances, and so on, is helpful in selections, and this information is best secured through the filled-in application, and the interview.

Temperament, intelligence, and manual aptitude tests are commonly given to groups of applicants at the same time, in contrast to interviews, which have to be conducted individually.

On the average, an applicant will fill in the Humm-Wadsworth question sheet in about an hour. Whether one person or fifty are tested, no supervision is required. Applicants sit down by themselves, and ring Yes or No.

This group testing usually reduces the time required in interviews—often to the extent that the installation of a testing program results in an immediate lessening of hiring costs.

The plotting of profiles from filled-in papers requires special technical training along psychological lines, but in an organization large enough to em-

ploy a personnel manager, the technical training necessary is easily acquired by special instruction for a short period, with supervision for a time afterward.

WHERE only a few people are hired in the course of the month—or even the year—the filled-in test papers are sent to a consulting psychologist, to be plotted and interpreted in terms that enable the employer to make his decisions. Thus the tests can be given anywhere and interpretations secured by mail, if necessary, for well-equipped consultants are now located in all sizable cities. In many cases, applicants are sent to a consultant's office for testing in person. This is a convenience for the employer hiring few people where aptitude tests are given with jigsaw blocks, pegs placed in holes, and similar mechanical testing apparatus.

Reports to employers are of two kinds, with the temperament test.

One is the simple statement that the applicant is acceptable or not for the kind of work contemplated.

The other is a more detailed report, giving a full statement of results, with a temperament profile, and the reasons why the applicant is considered acceptable or otherwise.

TEMPERAMENT, intelligence, and aptitude tests, used in combination according to the work for which people are being hired, largely eliminate the "bluffer" who is adroit at selling himself into a job by interview, but unable to hold it.

This type becomes familiar to employers and personnel managers through sad experience.

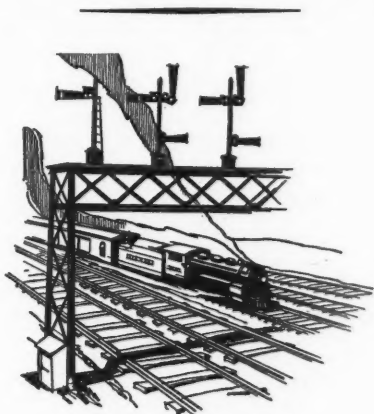
In a line of waiting applicants being interviewed during a rush of work,

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there are certain to be bluffers who watch the proceedings, ask questions of others, and pick up a smattering of trade lingo. With this quickly acquired knowledge, they make an excellent impression, and are hired; from the after consequences, the per-

sonnel manager learns something more about "trade bluffers," but never enough to be immune when the next clever applicant appears.

Temperament, intelligence, and aptitude tests measure real abilities, and expose the bluffer.



Our Defense Spending and Inflation

"CONCENTRATION on the rearmament program means readjustments by business, labor, and government, some of them painful and laborious. We launch our defense program under conditions which could become inflationary. Our present bank credit and national debt, and our surplus of bank funds are at ludicrously swollen figures.

"Our defense spending is piled on top of a huge annual budgetary deficit. We have been on a wild governmental spending spree and our habits and powers of control are impaired. As a people we have not suffered the usual consequences of these abortions and have come to believe we never will, a highly dangerous frame of mind.

"We need, first and foremost, stimulation—increased output. But we need, second, to begin to get under control some of our loose fiscal and monetary policies and powers. The defense program must be added to and not subtracted from our present output. If we thus lift the total national income there will be large increases in government tax receipts and decreases in unemployment, which should make possible large reductions in relief expenditures and thus bring the budget nearer to balance and lessen technical causes for inflation."

—W. RANDOLPH BURGESS,

Vice chairman, National City Bank of New York.



Wire and Wireless Communication

THAD H. Brown, of Ohio, resigned from the Federal Communications Commission on October 14th to resume his law business. Mr. Brown announced his withdrawal in a letter to President Roosevelt. His renomination as a member of the commission had been pending in the Senate since June 5th.

Mr. Brown, a Republican, asked the President to withdraw the nomination. Mr. Roosevelt said he would do so "reluctantly."

* * * *

WALTER S. Gifford, president of the American Telephone and Telegraph Company, said in a radio broadcast over a nation-wide network last month that the Bell system is prepared to do its part in the national defense program. Mr. Gifford stated:

In these critical times, national defense is the concern of all of us. Communications are an essential part of national defense and I am happy to report to you, the American people, that your telephone system is, it is generally agreed, by far the most comprehensive and the best in the world.

Mr. Gifford explained that the nation's telephone system is the result of initiative and ability, fostered and given free rein in an enterprise privately owned and managed. Today, he continued, there are more than 300,000 in the Bell system ready to do their full part in the national defense program. "Our business is financially sound," he declared. "We have the best telephone equipment in the world and plenty of it. It has been provided out

of voluntary savings of many hundreds of thousands of men and women."

The Bell system president asserted that the Western Electric Company, the system's equipment manufacturer, and Bell Laboratories constantly improve equipment and supply it in strategically located warehouses throughout the nation. The Laboratories and Western Electric, he recounted, are coöperating with the Army and Navy and air forces to solve important problems and supply needs. In addition, Mr. Gifford asserted that the Bell system's fully mechanized telephone construction and maintenance crews can be quickly concentrated.

* * * *

WITH the 22-year-old Association of Western Union Employees dissolved by order of the Circuit Court of Appeals, a bitter organizing battle recently was reported being carried on by the Congress of Industrial Organizations, the American Federation of Labor, and 19 independent unions to enlist the 43,000 employees of the Western Union Telegraph Company in all parts of the country.

The board of directors of the old employee representation group voted to disband after the court upheld a National Labor Relations Board decision requiring the company to withdraw all recognition from the association. Both the company and the association abandoned plans for carrying an appeal to the United States Supreme Court, and the company posted notices on all employee

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bulletin boards of its compliance with the circuit court order.

In New York city, a survey disclosed last month, Western Union workers are being bombarded with membership appeals from the American Communications Association, CIO; the Commercial Telegraphers Union, and the Western Union national organizing committee of the AFL and the Communications Guild, an independent organization. The AFL and CIO groups are active throughout the nation, but other independent unions have arisen in the West and South.

Frank B. Powers, president of the Commercial Telegraphers Union, which has a contract with Western Union in Washington, said its recruiting drive was being carried on in conjunction with Frank P. Fenton, national director of organization for the AFL. In some areas CTU locals are being set up for Western Union employees and in others Federal locals are directly chartered by the AFL executive council.

ASSERTING that 10,000 employees of the company had signed up with the AFL, Mr. Powers emphasized that his organization excluded Communists from membership. He said it should be "a matter of concern to the people of this country that the American Communications Association, which has so often been accused of Communism, should be seeking to get control of Western Union after signing a closed-shop agreement with the Postal Telegraph Company."

Spokesmen for the CIO union denounced the raising of the Communist issue as "a favorite device of persons seeking to block genuine labor organization." They declared that the response of Western Union workers to the CIO drive had picked up sharply after the circuit court decision and that an increased organizing staff had been rushed into the field.

In its recruiting literature the American Communications Association promises to seek higher wages in the light of the company's increased profits and to protect workers against displacement by machines.

Herman E. Cooper, attorney for the Communications Guild, the independent union in the field in New York, said most of the company's workers were desirous of avoiding affiliation with the AFL or the CIO. Mr. Cooper, who is also counsel for the Brotherhood of Consolidated Edison Employees, which won an NLRB election last April among employees of the utility system in New York city, said that the guild was making "marked progress."

* * * *

THE Pacific Telephone & Telegraph Company estimated that effect of Revenue Act of 1940 signed October 8th will be to increase tax obligations about \$795,000 this year. The effect of the tax act effective July 1st is now estimated at \$800,000 for the year. Thus combined additional Federal taxes for 1940 will be about \$1,595,000 or around 88 cents a share on 1,805,000 shares of common.

First eight months of year, including only effects of first Federal tax act, the company showed a balance of \$1,041,915 after dividends. This coverage is now estimated as having been reduced to \$522,915 after prorating back effect of second tax act. That result would compare with \$907,733 after dividends in like 1939 period.

* * * *

RATE schedules of Lorain County (Ohio) Radio Corporation, consisting of a \$25 a month ready-to-serve charge per ship plus charges of 75 cents to \$1 for each 3-minute message and another rate of \$1.50 per message for occasional users of radiotelephone service between ships on the Great Lakes and Lorain Corporation stations at Lorain, Ohio; Duluth, Minnesota; and Port Washington, Wisconsin, are found unreasonable by the Federal Communications Commission in a report (No. P-11) covering three docket cases (5658, 5659, 5671). These cases also involved the rates and practices of Thorne Donnelley, doing business as Donnelley Radio Telephone Company, for like service through his station at Lake Bluff, Illinois. The

PUBLIC UTILITIES FORTNIGHTLY

commission also cited certain illegal practices of both carriers.

In the matter of the Lorain Corporation (Docket 5658), the commission found the charging of a higher rate for a call to or from a station on a ship which does not contract to pay the Lorain ready-to-serve charge than for a like call to or from a station on a subscribing ship is an unjust discrimination against persons calling to or from ship stations on nonsubscriber ships and declared the suspended Lorain tariffs unlawful.

* * * *

AN Iron Guard commissar took over control of the American-owned Rumanian Telephone Company on October 11th and announced that Iron Guard understudies would be selected to take over eventually all the most important executive posts. The commissar for the telephone company was named under the government's program to place all foreign-owned companies in the hands of Iron Guard directors.

The government was reported considering a plan to establish two Iron Guard-controlled newspapers and suspend all others in Bucharest.

* * * *

WITHOUT authority from a court of record, the Michigan Bell Telephone Company cannot refuse service to an applicant, a telephone company spokesman said recently in reply to the statement of Judge Arthur E. Gordon, in Recorder's Court last month, that without the telephone company, gambling places could not exist.

Judge Gordon held for trial three brothers, William Niskar, Max P., and Charles, charged with conspiracy to violate the gambling laws in connection with the operation of a handbook in Detroit. "No one can believe that the phone company would install six telephones in a small room and collect \$300 in deposits without knowledge that the phones were being used for racket purposes. This situation should be looked into by the prosecutor's office," he commented.

A Bell official said "Judge Gordon

must know that the company was informed by the Michigan Public Service Commission that it could turn down an application for service only when a court so directs the company."

Sheriff Andrew C. Baird of Wayne county and Prosecutor Voorhies held a conference last month with representatives of the various public utilities to devise means of cooperation in curbing law violations. (See also p. 696 of this issue.)

* * * *

THE petition of farm organizations for an instalment payment plan of financing rural telephone construction was approved last month by the public service commission of Michigan. Whereas in the past lump sum payments have been required prior to rural telephone extensions, hereafter the payments may be made in monthly instalments over a 5-year period, under the order.

The order also provided for a lower schedule of fees.

* * * *

THE Minnesota Railroad and Warehouse Commission on October 16th issued an order which, it was estimated, would mean a saving of approximately \$150,000 a year for Minneapolis telephone subscribers, effective November 1st.

The penalty charge of 50 cents a month on resident telephones was cut in half and all special service charges reduced to accomplish the savings under the decree. In St. Paul, the penalty for late payment of a bill remains at 50 cents. Whether this and other fees will be cut to conform with Minneapolis rates was not learned.

With issuance of the order, the commission postponed further investigation of Minneapolis phone rates until "conditions are more nearly normal." The new schedule supplements a 1939 rate order which effected a saving of about \$650,000. The order cited that the commission had obtained for Minneapolis residents reductions aggregating \$2,500,000 since 1933.

WIRE AND WIRELESS COMMUNICATION

THE Southwestern Bell Telephone Company failed to obtain a review of a decision holding it liable for penalties for failure to provide two restaurants at Fayetteville, Arkansas, with service at the same rate claimed to have been granted to others. The appeal was dismissed by the United States Supreme Court "for want of a properly presented Federal question."

Carrie C. Lee and S. B. Hanna, the proprietors, contended the company refused to provide the standard \$3.50 per month service unless the telephones were installed in a kitchen or under a counter or in a place inconvenient to the public. The restaurants were patronized by students attending the University of Arkansas.

* * * *

CARL D. Brorein, of Tampa, Florida, on October 17th became president of the United States Independent Telephone Association, which convened in Chicago last month.

Other officers elected at the session were Louis Pitcher, Chicago, executive vice president; John H. Wright, Jamestown, New York, vice president; W. C. Henry, Bellevue, Ohio, vice president; C. C. Deering, Des Moines, secretary-treasurer.

Directors of the United States Independent Telephone Association also announced, at their Chicago convention, the employment of Clyde S. Bailey to become the association's legal representative in Washington, D. C. Mr. Bailey is well known in regulatory circles in connection with his work as secretary of the National Association of Railroad and Utilities Commissioners, a post from which he would resign to assume his new duties November 1st.

John E. Benton, general solicitor of the National Association of Railroad and Utilities Commissioners, in a bulletin circulated among the commissioners, expressed regret at Mr. Bailey's departure from the Washington office of the NARUC and extended best wishes for the future success of Mr. Bailey in his new position.

THREE developments during the past fortnight affected affiliated companies of the Bell system.

First, the Long Lines Division of the American Telephone and Telegraph Company reached a collective bargaining agreement with the Federation of Long Lines Telephone Workers—an independent organization. The agreement covers 10,500 long lines employees in various sections of the nation. The company agreed to submit payroll records to the labor statistics commissioner of the Department of Labor for analysis, to serve as a basis for future wage regulations. Some 3,000 workers were to receive immediate annual increases of \$100, regardless of the Federal analysis.

Second, the Illinois Bell Telephone Company agreed to reduce intrastate toll rates and extension charges approximately \$765,000 a year, following informal negotiations with the Illinois commission.

Then, the city of St. Paul, Minnesota, has sought the aid of the Federal Communications Commission in its telephone rate fight with the Tri-State Telephone Company.

* * * *

THE New York Public Service Commission has a right to enforce the tariffs charged hotels that provide public telephone service for patrons, it was ruled by New York Supreme Court Justice Bergan on October 21st. Opposing such a ruling were the New York Telephone Company and the Hotel Roosevelt, the Bowman Biltmore Hotels Corporation, the Southworth Management Corporation, and the New York Hotel Corporation. A 30-day stay was granted. Justice Bergan stated:

Whether public telephone service shall be sold at all by a business corporation or private individual is a question well within the regulatory power of the commissioner to determine.

They, the hotels, are allowed to surcharge the users of that service. The service as thus sold remains a public utility service. The surcharge for the utility service is, when permitted, an integral part of the rate for that service.



Financial News and Comment

By OWEN ELY

The Tax Menace

To what extent are the utilities able to offset higher taxes with savings due to lower interest rates (for which they are partly indebted to the administration's cheap-money policy)? Accurate figures are, of course, unobtainable, but it appears likely that fixed charges now take only about 11 or 11½ cents out of the utility dollar compared with 16 cents in 1932, 13 cents in 1929, and an average of 14½ cents in the other war-time period.

On the other hand, taxes (including the recent 6 per cent increase in normal income tax rate) probably absorb between 18 and 19 cents out of the dollar, compared with 10 cents in 1929. Thus, the benefits obtained from lower fixed charges have been more than outweighed by the imposition of higher taxes.

The utilities may, perhaps, be protected by the administration in this war from severe price inflation, whereas in the previous war the increased cost of materials probably absorbed over 10 cents out of each revenue dollar at the height of the inflation. However, it remains to be seen whether Washington can successfully control costs so long as we stay out of war, for it is difficult to exercise drastic control except by dictatorial war-time measures.

In the former World War the problem faced by the utilities was the price increase in coal and other materials, and higher interest rates; in the present war it is increased taxes. Rough figuring would seem to indicate that the 6 per cent increase in the normal tax rate will cost the utilities about an extra \$30-\$35,000,000, or about 10 per cent of their total tax bill. But is this only the be-

ginning? With excess profits taxes at an extremely high level, the tendency may be to raise the normal tax to a still higher percentage; in fact, the present Congress almost fixed it at 30 per cent instead of 24 per cent. Every such increase is a heavy penalty on utility common stockholders, particularly those of the much maligned holding companies; for, while the entire net income is taxed, the preferred stockholders escape any penalty except where higher taxes may jeopardize their dividend, and in many cases this multiplies the burden on the common stockholder.

The industry, therefore, is expected to be on the alert to combat any further increase in the normal tax rate, in congressional hearings or otherwise. Its gains from increased industrial sales of electricity hardly compensate for increased taxes, as is indicated by recent estimates of increased taxes per share. (See *FORTNIGHTLY* for October 24th, page 587.) Public Service of New Jersey, the first important system to adjust its earnings to the new basis, reported only \$2.53 per share for the twelve months ended September 30th, compared with \$2.94 for the same period last year, despite a 5 per cent increase in gross.

Huge Refunding Operations Still Possible

THE recent upsurge of the bond market to new record high levels indicates the large volume of potential refunding which the utilities may still have in prospect—including not only the original high-coupon issues still outstanding,

FINANCIAL NEWS AND COMMENT

but also the large number of prime issues awaiting a secondary refunding. The table on p. 678 is only a partial list of issues selling well over their call prices, as items under \$10,000,000 have been omitted, as well as a number of others which have a smaller spread between market price and call price. The issues here listed, arranged in the order of their coupon rates, aggregate as follows:

	Par Value (Millions)
5½ per cent bonds	\$ 62.5
5 " " "	602.5
4½ " " "	232.7
4 " " "	297.1
3½ " " "	290.2
3½ " " "	1,343.0
3½ " " "	821.8
Total	\$3,649.8

It would probably be impracticable to refund any 3½s except a few issues of the highest quality, and the 3½s would be out of the question except perhaps for short-term refunding; but these two coupons have been included in the tabulation as a matter of interest. Most of the issues with these rates are of the highest caliber and, in some cases, are selling for five points over their call prices. As previously pointed out in this department, the increase in the normal tax from 18 to 24 per cent tends to whittle down the potential profits from a refunding operation; but, on the other hand, many outstanding bond issues have relatively high call prices and the charging off of this premium, even when amortized over a period of years, effects a substantial saving in taxes. Another offsetting factor in the case of the larger underwriting is the comparatively small cost of the operation.

The \$108,000,000 Southern California Edison refunding cost the company only a little over two points, including expenses (estimated at \$383,940). Bonds with the coupon rate of 3½ per cent were refunded by 3s, with maturity five years longer (plus a small short-term bank loan at 1½ per cent). The Federal Power Commission allowed the company to amortize the debt discount, expense, and called premiums applicable to the re-

funded bond issues, after writing off to surplus various unamortized items from previous refundings. The refunding operation reduced the company's interest charges by \$810,000 and will, in the current year, effect tax savings under Federal and state laws estimated at \$1,835,000.

New Financing

WHILE further progress has been made in completing the distribution of the huge Southern California Edison bonds, the fact that the bonds were priced rather high and did not appeal to the larger insurance companies may have had some deterring effect on other pending offerings. However, the \$18,100,000 Central Maine Power first 3½s, offered about a week later by a First Boston-Coffin & Burr group, proved successful, going to a half-point premium over the issue price of 107½.

The smaller Michigan Public Service issues—\$3,500,000 first 4s of 1965, \$750,000 serial debenture 4s, and 85,000 shares of common stock—were also offered on October 17th.

The \$29,000,000 Columbus & Southern Ohio Electric first 3½s of 1970 were offered October 22nd at 107, selling group books being closed around the noon hour. The issue was handled by Dillon, Read and 57 other houses. The offering had been held up for some weeks along with the companion issue, \$16,500,000 San Antonio Public Service 3½s. The latter were finally offered on a semi-private basis October 24th, after a last minute change in the underwriting.

Connecticut Power Company has offered \$4,000,000 first 3½s of 1975 to its own stockholders. The new bonds are quoted around 111 and the rights around 65 cents, indicating the success of this rather unusual method of financing.

Danbury & Bethel Gas & Electric Company has filed a small issue of general mortgage bonds, together with preferred and common stock, all to be handled by a First Boston syndicate. Montana-Dakota Utilities Company has ap-

PUBLIC UTILITIES FORTNIGHTLY

PRINCIPAL UTILITY BOND ISSUES SELLING OVER CALL PRICES

(Arranged in order of coupon rates)

Out- standing (Millions)	Issue	Recent Price	Call Price	Out- standing (Millions)	Issue	Recent Price	Call Price
\$14.1	Virginia Pub. Serv. 5 $\frac{1}{2}$ /46 ..	104	101 $\frac{1}{2}$	25.0	North Amer. Co. 3 $\frac{3}{4}$ /54	105 $\frac{1}{2}$	102 $\frac{1}{2}$
32.4	Phila. Elec. Power 5 $\frac{1}{2}$ /72	113	106*	35.0	Oklahoma G. & E. 3 $\frac{3}{4}$ /66	109 $\frac{1}{2}$	107 $\frac{1}{2}$
16.0	Illinois P. & L. 5 $\frac{1}{2}$ /54	106 $\frac{1}{2}$	105*	16.9	Okla. Nat. Gas 3 $\frac{3}{4}$ /55	108 $\frac{1}{2}$	106
17.5	Louisiana P. & L. 5/57	106 $\frac{1}{2}$	103 $\frac{1}{2}$	25.0	N. Y. & Queens E.L. 3 $\frac{3}{4}$ /65 ..	110 $\frac{1}{2}$	106
35.0	Arkansas P. & L. 5/56	106	103 $\frac{1}{2}$	130.0	Philadelphia Elec. 3 $\frac{3}{4}$ /67	109 $\frac{1}{2}$	107 $\frac{1}{2}$
50.0	Columbia G. & E. 5/52	105 $\frac{1}{2}$	103	32.2	Niagara Falls Power 3 $\frac{3}{4}$ /66 ..	110 $\frac{1}{2}$	108 $\frac{1}{2}$
50.0	Columbia G. & E. 5/61	105	104	10.8	Cent. Hudson G. & E. 3 $\frac{3}{4}$ /65 ..	109	105
52.0	Florida P. & L. 5/54	104	102 $\frac{1}{2}$	16.0	Dallas P. & L. 3 $\frac{3}{4}$ /67	110 $\frac{1}{2}$	108
11.9	New Orleans P.S. 5/52	105	102	35.0	Detroit Edison 3 $\frac{3}{4}$ /66	112	108
17.9	New Orleans P.S. 5/55	104 $\frac{1}{2}$	102	27.5	Houston L. & P. 3 $\frac{3}{4}$ /66	110 $\frac{1}{2}$	107
17.3	Penn. Elec. 5/62	107 $\frac{1}{2}$	105	28.0	Louisville G. & E. 3 $\frac{3}{4}$ /66	110 $\frac{1}{2}$	107 $\frac{1}{2}$
33.7	Texas Elec. Serv. 5/60	106 $\frac{1}{2}$	104	50.0	Pacific G. & E. 3 $\frac{3}{4}$ /66	110 $\frac{1}{2}$	107 $\frac{1}{2}$
26.6	Texas P. & L. 5/56	107 $\frac{1}{2}$	103 $\frac{1}{2}$	37.5	Virginia E. & P. 3 $\frac{3}{4}$ /68	110 $\frac{1}{2}$	107
11.6	Empire Dist. Elec. 5/52	105	102 $\frac{1}{2}$	25.0	Westchester Light. 3 $\frac{3}{4}$ /67	109 $\frac{1}{2}$	106 $\frac{1}{2}$
102.9	Georgia Power 5/67	107	104	17.0	Buff. Niag. Elec. 3 $\frac{3}{4}$ /67	109 $\frac{1}{2}$	106 $\frac{1}{2}$
12.0	Iowa-Neb. L. & P. 5/57	105 $\frac{1}{2}$	102 $\frac{1}{2}$	100.0	Commonwealth Ed. 3 $\frac{3}{4}$ /68	110 $\frac{1}{2}$	106
60.0	Philadelphia Co. 5/67	106 $\frac{1}{2}$	105	60.0	Consol. Edison 3 $\frac{3}{4}$ /48	105 $\frac{1}{2}$	104
16.0	Mississippi P. & L. 5/57	105	103 $\frac{1}{2}$	35.0	Consol. Edison 3 $\frac{3}{4}$ /56	104	102 $\frac{1}{2}$
15.0	Alabama Power 5/68	106	103	30.0	Consol. Edison 3 $\frac{3}{4}$ /58	108 $\frac{1}{2}$	106
15.9	Miss. River Power 5/51	108 $\frac{1}{2}$	105*	33.7	Narragansett Elec. 3 $\frac{3}{4}$ /66	110	107 $\frac{1}{2}$
18.8	Niag. Lock. & Ont. 5/55	108 $\frac{1}{2}$	105*	28.0	N. Y. Steam 3 $\frac{3}{4}$ /63	107	105
10.0	Bklyn. Union Gas 5/57	107	105*	13.0	North Boston Light. 3 $\frac{3}{4}$ /47 ..	104 $\frac{1}{2}$	102 $\frac{1}{2}$
10.7	Minn. P. & L. 5/55	107	103*	75.0	Nor. States Power 3 $\frac{3}{4}$ /67	110 $\frac{1}{2}$	107 $\frac{1}{2}$
17.7	Alabama Power 5/51	106 $\frac{1}{2}$	103*	80.0	Pub. Serv. No. Ill. 3 $\frac{3}{4}$ /68	110 $\frac{1}{2}$	106 $\frac{1}{2}$
16.5	Nebraska Power 4 $\frac{3}{4}$ /81	110 $\frac{1}{2}$	106 $\frac{1}{2}$	26.4	Kansas P. & L. 3 $\frac{3}{4}$ /69	112 $\frac{1}{2}$	111
20.7	Safe Harbor W.P. 4 $\frac{3}{4}$ /79	108	104	55.0	Wisconsin E.P. 3 $\frac{3}{4}$ /68	109 $\frac{1}{2}$	107
11.5	So. Counties Gas 4 $\frac{3}{4}$ /68	104 $\frac{1}{2}$	101 $\frac{1}{2}$	10.5	Wisconsin G. & E. 3 $\frac{3}{4}$ /66	108	105 $\frac{1}{2}$
13.9	New Jersey P. & L. 4 $\frac{3}{4}$ /60	107	105	20.0	Lone Star Gas 3 $\frac{3}{4}$ /53	108	105
22.0	Monon. West Penn. 4 $\frac{3}{4}$ /60	110	107 $\frac{1}{2}$	95.0	Penn. P. & L. 3 $\frac{3}{4}$ /69	110 $\frac{1}{2}$	108 $\frac{1}{2}$
18.0	Minn. P. & L. 4 $\frac{3}{4}$ /78	103	101 $\frac{1}{2}$	20.0	North Amer. Co. 3 $\frac{3}{4}$ /49	105 $\frac{1}{2}$	103 $\frac{1}{2}$
28.5	Penn. P. & L. 4 $\frac{3}{4}$ /74	109	107	36.3	Commonwealth Ed. Cv. 3 $\frac{3}{4}$ /58	121 $\frac{1}{2}$	103 $\frac{1}{2}$
47.8	Alabama Power 4 $\frac{3}{4}$ /67	103 $\frac{1}{2}$	101	45.0	Ill. Bell Tel. 3 $\frac{3}{4}$ /70	111	107 $\frac{1}{2}$
20.0	Buffalo Gen. El. 4 $\frac{3}{4}$ /81	111	107 $\frac{1}{2}$ *	45.0	S. W. Bell Tel. 3 $\frac{3}{4}$ /64	109 $\frac{1}{2}$	107 $\frac{1}{2}$
22.8	Metro. Edison 4 $\frac{3}{4}$ /68	111 $\frac{1}{2}$	107 $\frac{1}{2}$ *	18.9	Consumers Power 3 $\frac{3}{4}$ /65	108 $\frac{1}{2}$	104 $\frac{1}{2}$
11.0	Scranton G. & W. 4 $\frac{3}{4}$ /58	104	102*	55.2	Consumers Power 3 $\frac{3}{4}$ /70	111	108*
49.0	Detroit Edison 4/65	108 $\frac{1}{2}$	107	27.0	West Penn. Power 3 $\frac{3}{4}$ /66	110	107 $\frac{1}{2}$ *
28.9	Ohio Pub. Serv. 4/62	109	106	55.0	Brooklyn Edison 3 $\frac{3}{4}$ /66	110	106
13.9	N. Y. State E. & G. 4/65	107	105	33.3	Cincinnati G. & E. 3 $\frac{3}{4}$ /66	109 $\frac{1}{2}$	106
25.0	North Amer. Co. 4/59	106	103 $\frac{1}{2}$	22.1	Con. G. E. & P. Balt. 3 $\frac{3}{4}$ /71	111	107
44.0	Ohio Edison 4/65	107 $\frac{1}{2}$	105	55.0	N. Y. Edison 3 $\frac{3}{4}$ /65	109 $\frac{1}{2}$	105
16.0	Pub. Serv. of Okla. 4/66	107	105	30.0	N. Y. Edison 3 $\frac{3}{4}$ /66	111	107
24.5	Wis. Public Serv. 4/61	110	107 $\frac{1}{2}$	20.0	Potomac Elec. Power 3 $\frac{3}{4}$ /66	109 $\frac{1}{2}$	105 $\frac{1}{2}$
32.9	Wisconsin P. & L. 4/66	106 $\frac{1}{2}$	105	35.0	Consol. Edison 3 $\frac{3}{4}$ /46	103 $\frac{1}{2}$	102
12.5	Pub. Serv. of Colo. 4/49	107	104	55.0	Ohio Power 3 $\frac{3}{4}$ /68	109	106
10.0	N. Y. & Westches. Light. 4/04	106 $\frac{1}{2}$	100*	16.0	Conn. L. & P. 3 $\frac{3}{4}$ /66	109 $\frac{1}{2}$	108*
11.7	Metro. Edison 4/65	110	107 $\frac{1}{2}$ *	25.0	N. Y. Telephone 3 $\frac{3}{4}$ /67	111	106*
11.8	Minneapolis Gas Lt. 4/50	106 $\frac{1}{2}$	105*	29.7	Pacific Tel. & Tel. 3 $\frac{3}{4}$ /66	110	106*
16.9	Phil. Sub. Water Co. 4/65	106	104*	24.9	Pacific Tel. & Tel. 3 $\frac{3}{4}$ /66	111 $\frac{1}{2}$	108 $\frac{1}{2}$ *
90.0	Union Elec. of Mo. 3 $\frac{3}{4}$ /62	107 $\frac{1}{2}$	104 $\frac{1}{2}$	45.0	South. Bell T. & T. 3 $\frac{3}{4}$ /62	109 $\frac{1}{2}$	105*
19.4	Conn. River Power S.F. 3 $\frac{3}{4}$ /61	109 $\frac{1}{2}$	106	175.0	Amer. Tel. & Tel. 3 $\frac{3}{4}$ /61	109	107 $\frac{1}{2}$
18.0	Idaho Power 3 $\frac{3}{4}$ /67	108 $\frac{1}{2}$	105	160.0	Amer. Tel. & Tel. 3 $\frac{3}{4}$ /66	109 $\frac{1}{2}$	107 $\frac{1}{2}$ *
12.0	Amer. Gas & Elec. 3 $\frac{3}{4}$ /70	109 $\frac{1}{2}$	107 $\frac{1}{2}$	18.6	Consumers Power 3 $\frac{3}{4}$ /69	110 $\frac{1}{2}$	109*
48.4	Central N. Y. Power 3 $\frac{3}{4}$ /62	108 $\frac{1}{2}$	105	22.2	Consumers Power 3 $\frac{3}{4}$ /66	109 $\frac{1}{2}$	106 $\frac{1}{2}$ *
12.5	Wis. Mich. Power 3 $\frac{3}{4}$ /61	106 $\frac{1}{2}$	104				
13.0	N. Y. State E. & G. 3 $\frac{3}{4}$ /64 ..	110	107				

*Callable only on interest dates.

plied to the FPC for authority to issue \$3,900,000 serial notes to be sold privately.

Boston Edison has not yet completed its plans for a \$53,000,000 refunding bond issue, but considering the company's high credit standing, there has been some conjecture as to whether it may not attempt to offer the first long-

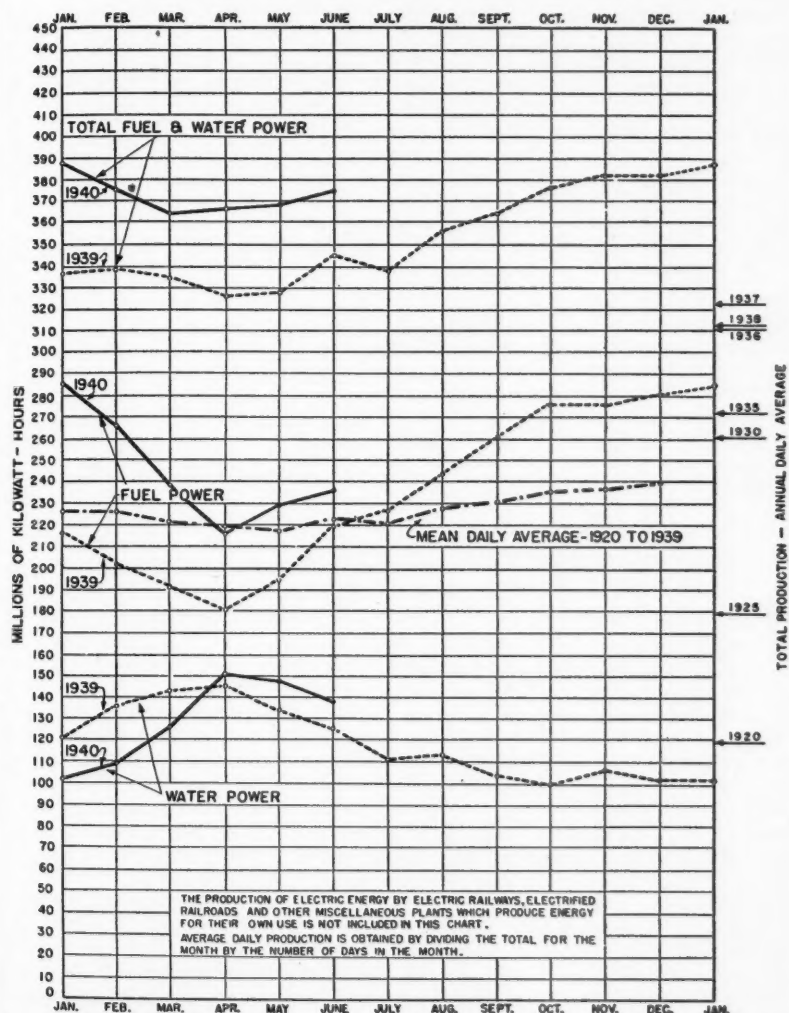
NOV. 7, 1940

term 2 $\frac{3}{4}$ per cent bond issue. It is thought that such an offering could be sold around 102-3, based on the market prices and yields of other premier issues.

COMMONWEALTH Edison has made rapid progress with the conversion of its 3 $\frac{3}{4}$ per cent debentures into common stock, recent reports indicating only

FINANCIAL NEWS AND COMMENT

AVERAGE DAILY PRODUCTION OF ELECTRIC ENERGY BY PUBLIC UTILITY PLANTS IN THE UNITED STATES



Federal Power Commission

about \$31,000,000 still outstanding. Since come there is a strong incentive to make the holder can more than double his in the switch, and there is talk of expediting

PUBLIC UTILITIES FORTNIGHTLY

the exchange by calling the remaining bonds for redemption. The bonds are currently around 122 and have sold as high as 130½ this year. It is also possible that the \$100,000,000 3½s, currently around 110½, may be refunded.

American Telephone and Telegraph is expected to expedite redemption of its \$95,000,000 debenture 5½s (which can be called on November 1, 1941, at par, compared with the current redemption price of 110), despite the double interest involved. It is also probable that the company may decide to raise a substantial amount of new capital since, at the end of last year, it had already loaned \$126,000,000 to subsidiaries.

The \$99,000,000 Detroit Edison refunding operation has become involved by litigation between the company and the SEC over the question of whether the company is subject to the provisions of the Holding Company Act.

Columbia Gas has also asked the SEC to decide its status under the Holding Company Act, so that it can expedite its \$100,000,000 refunding program.

Chairman Frank Hits Investment Bankers

THE action of certain investment interests in pressing for further shortening of the waiting period on new offerings, and the assertion by IBA Chairman Connelly that overregulation of the security markets means state capitalization, evidently "got a rise" out of SEC Chairman Frank, who responded vigorously in a speech before the American Institute of Accountants. Mr. Frank charged that "a small group of ultra conservative bankers" is trying to have the Securities Act "gutted." This criticism caused some surprise, in view of the fact that the SEC had previously invited the bankers to confer. Mr. Frank later explained his remarks were misinterpreted. His address was devoted in part to answering a speech on accounting practices made five months ago by John Hancock of Lehman Brothers. Chairman Frank claimed that the SEC is striving

to improve accounting standards but realizes that perfection is unattainable. He was quoted as follows:

Mr. Hancock deplors "the kind of attacks which have been made upon management and upon auditors in recent years." If he means unfair attacks, I concur. If he means severe criticism of some managements and auditors based upon such cases as McKesson & Robbins or some of the cases recently reported in our investment trust studies, then he is surely wrong. I hope that, in that respect, I have misunderstood him. But I do go along with him in objecting to those who have tried to put business as a whole "in the doghouse."

United Light & Power Company

UNITED Light & Power Company has filed an amended plan of recapitalization and simplification with the SEC, which provides for only one class of common stock. Each share of \$6 preferred now outstanding (with its dividend arrears) would be exchanged for six shares of new common stock, and each share of Class "A" and "B" common would receive one-tenth share of new common.

For the twelve months ended August 31, 1940, the consolidated income account showed net income of \$5,104,170, which would be equivalent to about \$1.29 per share on the 3,947,676 shares of common stock to be outstanding on completion of the above exchanges. Assuming that the new common stock sells in line with the present price of the preferred (28¼), this would be equivalent to about 4¾ for the new common stock, which is 3.8 times the indicated earnings per share. The parent company's earnings were approximately half the consolidated figure and, on the basis of such actual earnings of the top company, the common stock would be selling at 7.6 times earnings.

The preferred stock advanced about two points net recently, but remains about 11 points under its high, this year's range being 39-16¾. Earnings have shown a substantial gain over 1939, but such gains might taper off in the future owing to increased costs and taxes.

FINANCIAL NEWS AND COMMENT

INTERIM EARNINGS STATEMENTS

Electric and Gas	No. of	End	System Earnings per Share (a)			
	Months	of	Last	Previous	Per Cent	Per Cent
	Included	Period	Period	Period	Increase	Decrease
American Gas & Electric	12	Aug. 31(b)	\$2.92	\$2.51	16%	..
American Power & Lt. (Pfd.)	12	Aug. 31(b)	7.12	5.49	30	..
American Water Works	12	June 30(c)	1.45	.48	203	..
Boston Edison	12	June 30(c)	9.26	9.20	1	..
Cities Service P. & L. (Pfd.)	6	June 30	19.83	18.74	6	..
Commonwealth Edison	12	June 30	2.35	2.39	..	2%
Commonwealth & Southern (Pfd.) ..	12	Aug. 31(bc)	9.09	8.69	4	..
Consolidated Edison, N. Y.	12	June 30(c)	2.26	2.09	8	..
Cons. Gas of Baltimore	12	Aug. 31	4.96	4.58	8	..
Detroit Edison	12	Sept. 30	8.12	7.84	4	..
Electric Bond & Share (Pfd.) (f) .	12	Sept. 30(c)	6.37	6.68	..	5
Elec. Power & Lt. (1st Pfd.)	12	May 31(bc)	8.50	5.72	49	..
Engineers Public Service (d)	12	Aug. 31	1.67	1.41	18	..
Federal Light & Traction	12	June 30(c)	2.52	2.60	..	3
Inter. Hydro-Elec. (Pfd.)	12	June 30(c)	4.50	9.14	..	51
Long Island Lighting (Pfd.)	12	June 30(c)	5.15	6.05	..	15
Middle West Corp.	6	June 30(c)	.54	.46	18	..
National Power & Light	12	Aug. 31(b)	1.29	1.12	15	..
Niagara Hudson Power	12	June 30(c)	.51	.57	..	11
North American Co.	12	June 30(c)	2.11	1.81	16	..
Northern States Power (Cl. A) ..	12	Aug. 31	3.88	.25	..	..
Pacific Gas & Electric	12	June 30	2.78	2.75	1	..
Public Service Corp. of N. J.	12	Sept. 30(b)	2.53	2.94	..	14
Southern California Edison	12	June 30(c)	2.33	2.34	..	..
Standard Gas & Elec. (Pr. Pfd.) ...	12	June 30(c)	10.24	4.70	118	..
United Gas Improvement	12	June 30(c)	1.07	1.04	3	..
United Light & Power (Pfd.)	12	Aug. 31	8.51	5.77	48	..
Gas Companies						
American Light & Traction	12	Aug. 31	1.71	1.56	9	..
Brooklyn Union Gas	12	June 30(c)	2.28	3.07	..	26
Columbia Gas & Electric	12	June 30(c)	.63	.49	28	..
El Paso Natural Gas	12	Aug. 31(b)	3.85	3.85	..	..
Lone Star Gas	12	June 30(c)	1.26	1.07	17	..
Oklahoma Natural Gas	12	Aug. 31	3.71	2.09	78	..
Pacific Lighting	12	June 30	2.63	4.46	..	41
Peoples Gas Light & Coke	12	June 30(c)	4.84	2.72	77	..
United Gas Corp. (1st Pfd.)	12	May 31(c)	13.92	10.44	33	..
Telephone and Telegraph						
American Tel. & Tel.	12	Aug. 31(c)	10.92	9.43	15	..
General Telephone	12	June 30(c)	2.69	..	..	..
Western Union Tel.	8	Aug. 31(b)	1.77	D.29	..	..
Traction Companies						
Greyhound Corp.	12	June 30(c)	2.11	2.18	..	3
N. Y. City Omnibus	6	June 30(c)	2.23	2.46	..	9
Twin City Rapid Tran. (Pfd.)	6	June 30(c)	3.08	4.38	..	30
Systems outside United States						
Amer. & Foreign Pwr. (Pfd.)	12	June 30(c)	5.74	5.41	6	..
Inter. Tel. & Tel. (e)	6	June 30	D.02	.21	..	..

D—Deficit.

- (a) On common stock, unless otherwise indicated following name of company.
- (b) Data also available for month indicated.
- (c) Data also available for quarter.
- (d) Excluding Puget Sound Power & Light Company.
- (e) Excludes Spanish, German, and Polish properties.
- (f) Parent company basis.



What Others Think

Repercussions from the St. Lawrence Power-seaway Divorce



WHEN President Roosevelt in mid-October disclosed that he had allocated \$1,000,000 for exploratory borings, as a preliminary to construction of a power dam on the St. Lawrence river International Rapids, the news was received on this side of the international border with considerably mixed emotion. Power generated at the projected dam, said the President, would be utilized jointly by the United States and Canada for national defense industries on a share-and-share basis.

By way of explaining the lack of any treaty negotiations, such as that which was denied confirmation by the United States Senate in 1934, the President indicated that he is cutting through red tape which for years has blocked development of the St. Lawrence project. But he emphasized that the immediate work applies only to power and has no bearing on the controversial Great Lakes-St. Lawrence seaway.

Washington observers, noticing the "preliminary" label placed by the President on the "exploratory borings," immediately recalled how the Bonneville and Grand Coulee projects on the Columbia river were commenced—in their initial phase—solely on authority of a presidential Executive Order, after previous sessions of Congress had declined to give express authorization for such projects. Once under way, however, Congress followed up the initial investment by the President with supplementary appropriations for both Columbia river dams.

THE President said that there is an acute need for power for national defense industrial purposes on both sides of the Canadian boundary. A dam located on the rapids near Messina,

New York, would meet a portion of this need. He added that he did not plan to appoint an American commission to work jointly with Canada, but that his method of approach would be less formal.

Anticipating that the dropping of the seaway feature of the St. Lawrence project would create a storm in the Great Lakes area, administration officials informally suggested that the power project construction would undoubtedly be accomplished in such a way as to permit the subsequent development of the seaway. This evidently failed to appease advocates of the seaway. Inasmuch as the marriage between the power and seaway phases of the proposed St. Lawrence project was the greatest source of its political strength in the Senate, the divorce was expected to have some adverse repercussions in that chamber after the general elections.

In 1934 Senators from the grain states, visualizing cheap transatlantic transportation from Great Lake and European ports, joined with progressive Senators interested in the promotion of public ownership of power projects. By the same token, some of these Great Lake area Senators now fear that if the St. Lawrence water-power development is put through without the seaway feature, half of the political support for the latter will be dissipated, and the seaway will have, in popular parlance, "missed the bus." In other words, since the seaway commands perhaps less general support on economic grounds than the power generation phase, it may be a case of putting both features through at the same time, or having the seaway feature postponed indefinitely.

Of course, support of the seaway by Senators from the Great Lakes area

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was offset by bipartisan opposition from Senators from states on the Atlantic seaboard, or so-called "port states." They did not welcome the effect of any St. Lawrence seaway on the business of such important shipping centers as Boston, New York, Baltimore, New Orleans, etc. Doubtless these seaboard Senators would not be so concerned about the completion of a St. Lawrence project devoted solely to hydro power. They might even be pleased about it for the reason already mentioned.

JOURNALISTIC reflection of disturbance in the Great Lakes over the St. Lawrence divorce proceedings found expression in a number of important dailies. *The Detroit News*, for example, had just completed a series of articles by A. M. Smith, plugging the St. Lawrence seaway as a vital national defense project. Mr. Smith met the argument that the seaway would take six or seven years to complete with the rejoinder that it would take six or seven years to complete our 2-ocean Navy; and the sooner that both projects were started, the better for national defense.

The Navy could be improving newly acquired northern bases and, at the same time, have snug berths and safe ship-building facilities in the Great Lakes—far removed from bomb attack danger. (Incidentally, Mr. Smith's articles did not suggest any answer to the cynical query once made by *The* (Baltimore) *Sun* as to what the United States Navy would be doing in the Great Lakes, even assuming that capital ships could negotiate the locks, since it was generally supposed that the Navy should be protecting the country rather than the country protecting the Navy.)

ANYWAY, with this background, we can understand the hurt feelings of *The Detroit News* when word came from Washington, within a couple of days after the series of Smith articles had been completed, that the seaway feature was going to be dropped for the present. The *News* editorially stated:

It seems to us the President owes an explanation to the Great Lakes states which for thirty years have been agitating for the seaway. What is the meaning of this seeming coup?

The damming and flooding of the International Rapids are virtually all that remains to be done to open navigation from the lakes to the sea. From the beginning development of these rapids has been regarded as inevitably a power and navigation project. The power would pay for most of the cost. The locks and other navigation facilities would cost only \$125,000,000, a modest sum in these days.

The Great Lakes states fairly may demand of the President an explanation of why power development alone now is to be undertaken and how this project is related, if at all, to the seaway plans.

The project apparently is for a single dam. The plans drawn and agreed on by the joint board of engineers for the seaway call for two dams in the rapids.

Does the project conform at all to the joint board's plans?

Is the dam to be located with reference to those plans? Is it to be of the height agreed on? Is it to be fitted with locks? Are the locks to conform to specifications as to width and depth and as to location?

The circumstances surrounding the present agreement do not make for hope that the answers to these questions can be wholly satisfactory.

But, even if they are, it still is evident a separate power project will alter entirely the basis on which treaty negotiations have proceeded to date. A wholly new start must be made, if any now is made at all, towards a new treaty.

The power project is described by the State Department as a defense necessity. But so is the seaway needed, in a hundred ways, for defense.

It will open the industrial and agricultural heart of the continent to the sea.

It will lower costs, increase national efficiency, prevent repetition of the rail congestion that handicapped the 1917-18 war effort.

It will place Great Lakes ship-building facilities at the disposal of the Navy.

What is the justification, Mr. President, for separate power development on the St. Lawrence, when, at slight additional cost, America might have the seaway?

A protesting note was found in the following editorial from the *Cleveland Plain Dealer*:

Announcements at Washington and Ottawa are likely to give advocates of the St. Lawrence waterway some concern.

The National Seaway Council, chief advocate of the waterway on this side of the

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border, has rightly argued that "the St. Lawrence project in its power and navigation phases is a single entity; it cannot be and should not be subdivided into two parts."

Reports have been current for some time that the Roosevelt administration was inclined to give the power interests in New York what they wanted from the St. Lawrence, waiting for some more favorable occasion for pressing the navigation phase of the improvement. There was ample reason for protesting against such a division, as the seaway group was quick to do.

It is easy to believe that if the power interests get now all they want from the big river, development of the stream for navigation is likely to be long delayed. The two aspects of the improvement should be advanced together. Here is a case where strength lies in union of interests.

Great Lakes cities are interested primarily in St. Lawrence navigation. New York wants power. These lake regions will be rightfully resentful if the administration divides the ranks of the seaway advocates by letting the power interests have what they want, and leaving the navigation group out of the picture.

At the recent convention of the Mississippi Valley Association in St. Louis, Lachlan MacLeay, president of that group, denounced the President's plan for rushing construction of the St. Lawrence power project and declared that huge sums necessary to build the plant might be better spent on more direct phases of national defense. MacLeay stated:

We are opposed to any development of the St. Lawrence waterway, for navigation or power, unless Lake Michigan is protected as an all-American lake. We want adequate diversion of water from Lake Michigan to insure maintenance of a 9-foot channel, the year around, between Chicago and the Gulf of Mexico.

It will take so many years to build and develop the power projects on the St. Lawrence river that their benefit in the national defense program appears very doubtful. If we are going to take them into account as a defense measure, we must presume that the war will last a decade or longer.

It seems to us that money that would be expended for this far-distant facility might better be spent on the development of air fields, the manufacture of airplanes in the midcontinent area, and the training of a great air personnel.

Were this power plant actually needed for defense, it could be built in much shorter

time and at less cost than a steam plant using coal as fuel.

The New York Times, which has in the past been as critical of the seaway feature as it has been of the power feature of the St. Lawrence proposal, editorially questioned the new single-purpose proposal. The *Times* stated in part:

... A work which cannot be completed before 1945 or 1947 is not likely to be of much importance in the present crisis. Canada can obtain all the hydroelectric power required for her present needs from the additional water which may be diverted from Niagara, by the agreement recently reached, as well as from still more water to be released in accordance with the recommendations of the international board—all without marring the falls. If this is not enough Ontario can develop nearly 900,000 horsepower on the upper and lower Ottawa. On the principal rivers of Quebec, the Gatineau, the Lievre, the St. Maurice, and the Saguenay another 2,000,000 horsepower is available. In the Soulanges reach of the St. Lawrence, which lies wholly within Canada, there is a fall of 86 feet, from which 1,500,000 horsepower is also available. Any of these water powers can be developed at far less cost, and with far more speed, than the International Rapids of the St. Lawrence. The Province of Quebec has made these points time and time again. It properly objects to the development of the St. Lawrence at Dominion expense for the primary benefit of the publicly owned, tax-free system of Ontario.

As for the United States, engineers have pointed out on innumerable occasions that steam plants can be erected far more rapidly and inexpensively than hydroelectric plants. Moreover, the cost of steam-generated electricity is now so low that even on the western coast no privately owned public utility company is thinking of developing water power. Considered as a war or a defense necessity, or as an engineering enterprise, there is no economic reason for harnessing the International Rapids of the St. Lawrence at this time.

THE Canadian press, on the other hand, was generally quite favorably disposed to the President's course of action.

Some newspapers from areas which had little geographic interest in either the seaway or power feature of the St. Lawrence project questioned the economic validity of the proposal and advised caution.

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A SYMBOL OF THE HOUSEWIFE; BUT, OF COURSE, THAT WAS BEFORE UTILITY APPLIANCES

Thus, *The Dallas (Tex.) News* stated editorially in part:

The comprehensive report of the Brookings Institution on the original project indicated that the deep water channel would be relatively more expensive than the power project. This might lend encouragement to the revival of the project primarily as a power enterprise. However, the original project was advanced as one in which joint power and navigation construction and operations would effect economy. From this viewpoint, the presently suggested power project does not seem practicable, although it was the least expensive of the two original enterprises.

It is known that President Roosevelt has long fancied the St. Lawrence project and would like to see it pushed to completion before he leaves office. It is likewise known that the President doesn't always balance the cost against the good to be derived from projects on which the government spends its billions. The new move is predicated upon the present omnibus reason for everything—the national defense program. There would be no sense in producing "adequate power" for national defense by the St. Lawrence project if the adequate power could be produced more economically otherwise.

A careful, exhaustive, and impartial survey of the practicability of the new un-

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dertaking should be made before any new treaty is considered.

There remains considerable sentiment among Washington observers to the effect that the President still has in mind the addition of the seaway feature, and

that the President really does not want the St. Lawrence divorce to be final; that there will be a reconciliation between the seaway and the power features, once the latter is well under way and safely beyond congressional reprisal.

A Prexy's Views on Political "Robber Barons"

TAKING as a text the old maxim that there is no substitute for hard work, President Harvey N. Davis of the Stevens Institute of Technology, delivered a stirring criticism of current modes of political reform in an address before the recent annual convention of the American Gas Association at Atlantic City, New Jersey. Dr. Davis compared the good nature and hard work with which typical American frontiersmen even today endure privation and hardship in Alaska prospecting for gold, with the attitude of continental American commerce which has been softened up by the persistent demands of paternalistic reform. Dr. Davis stated:

We seem to be in the midst of one of those recurrent periods in human history when considerable numbers of people apparently believe that there are other and easier ways of getting on in the world besides working.

This obsession takes various forms under various circumstances. At the moment, in this country, it seems to be taking the form of thinking that prosperity and the good life can best be attained by political reform rather than by maintaining and increasing production. We have devalued gold and forced the repudiation of the gold clause in a host of public and private bonds without stopping to think of the effect of all this on that confidence on which forward-looking production so much depends. We have boon-doggled and made work under conditions that not merely invited inefficiency, but often required it, by prohibiting the use of even that minimum of machinery that would have permitted the same amount of willing labor to produce far more for the public good. We have ploughed cotton under and killed pigs in the hope of raising prices. We have distributed a dole with, I fear, more concern for its political than for its economic effect. We have tried to cure abuses in the investment banking field in ways that have well-nigh killed activity in that field altogether. We have increased both taxes

and public debt to the great detriment of present and future national productivity. And we have so managed the methods of our taxation as to discourage almost completely that adventurous development of new industries on which every period of full employment and every high level of production in the past have rested. Seldom in the last seven years has national emphasis been focused on getting our coats off and buckling down to hard, self-denying, well-directed work. Always the emphasis has been on reform, on a new deal of a sadly depleted deck, on the hoped for efficacy of a long succession of political panaceas or social palliatives. Only when the mass of voters in this country learn that there can be no substitute for hard work and high production as a basis for decent living—only then will decent living be possible in this country or in the world.

Dr. Davis discussed the need for the business community to take a practical attitude in facing reality of the prevailing reform situation. He feared that pessimism and defeatism might undermine the executive excellence of American business in the face of continued political triumph of more and more paternalism. "When a situation is *there*," said Dr. Davis, "there is no use grouching about it. All you can do is to do the very best you can in the face of it." Instead of throwing up hands he suggested "buckling down and doing a top-notch job."

ANOTHER disquieting obsession of modern times touched upon by the speaker is the belief that people are justified in taking by force or guile other people's property under such laboriously rationalized excuses as "redistribution of wealth" and obtaining a nationally destined living space. The speaker pointed out that the trouble with such polite

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"highway robbery" is that the loser usually loses more than the attacker gains and there is actually a net diminution in the total wealth "redistributed." This is so obvious that it has been the major task of civilization through the centuries to stabilize property rights as a necessary basis for material and cultural progress.

Referring to recent international land grabs undertaken in this spirit, Dr. Davis said that we do not have to look abroad for similarly disquieting instances. He stated on this point:

... Whenever you find a group fighting to increase its share of the national consumption in ways that lessen the national production as a whole, you have an example of local "power politics." Unfortunately, American trade-unionism, by and large, has not yet wholly emerged from this fighting-for-one's-rights-at-the-expense-of-others stage. There are, of course, some notable exceptions in the way of unions that have given effective coöperation in increasing the productivity of their members and the total production of their industries. But all too many, not only of the rank and file, but of the leaders as well, still believe, or profess to believe, that the less a man can do today and still draw his pay, the more there will be left for him and his fellow workmen to do tomorrow. A more far-sighted solution of the labor problem would be along the lines advocated so many years ago by Frederick

Winslow Taylor. His philosophy was that the more a workman produced in a day, the larger should be not merely his total wage, but his proportionate share of what he produced, the cost of the overhead per piece being less because of the increased production. It was a sound application of the principle that increased production is the only sound basis for increased consumption.

Likewise, in the political field the speaker deplored the recent tendency of an underprivileged minority to deprive by political force or guile the sounder strata of our economic system through pork-barrel raiding without any thought of the effect on the national production of the country as a whole. Correction of such a tendency will only come with national recognition and a firm conviction of the simple fact that hard work is the indispensable basis for decent living, that wealth must be produced before it can be distributed, that competent leadership in production is our greatest national asset, and that American industry deserves the fullest measure of administrative coöperation and encouragement because it is the most effective instrumentality yet devised for promoting a high standard of living for the American people.

The Gas Industry and the National Defense

FOLKS not familiar with the technical phases of the gas business may not appreciate immediately just what an important place this industry has in the vital task of making America invincible. The average citizen is perhaps inclined to think of gas (natural, manufactured, or mixed) as something which his wife uses to prepare and perhaps preserve the family food, and which also heats the family water supply and perhaps the house as well. In addition, he may have an idea that it is quite a useful fuel in bakeries, pottery works, and other commercial and industrial lines. But the immediate application of gas to the national defense program is not so apparent as in the case of the aircraft or munitions industries.

For this reason, the paper read at the recent annual convention of the American Gas Association at Atlantic City, New Jersey, by Franklin T. Rainey, chairman of the industrial gas section of the AGA and general sales manager of the Ohio Fuel Gas Company, is a real eye opener. Probably the best clue to the defense importance of the gas industry is the pains taken to preserve it from sabotage. As far back as 1935, Germany recognized this situation and with constant rehearsals with picked personnel with specific duties, there were developed production and service plans for the maintenance of supply and service under emergency conditions. Mr. Rainey advocated similar preparation in the United States. He continued:

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Our greatest contribution will be that of not only furnishing gas to industry, but developing and assisting industry in new and better ways of utilizing our product. This, then, will be a coöperative assignment, involving the combined personnel of three great industries; the gas industry, through its industrial sales engineers, the gas equipment manufacturers, and all industries making any specific defense product must all combine their talents to effect with speed and efficiency the desired results. . . .

During the last war, no trained industrial personnel existed in the gas industry. There was no gas-fired equipment, utilizing gas as a fuel, as we have today. Industry used gas fuel, but by means of any makeshift method that could be figured out at the time, by men totally unprepared by experience or training for an assignment of such magnitude and importance. Efficient heating methods and applications had not yet been evolved.

Today, because of systematically planned and far-sighted policies adopted by most gas companies, we are fortified with thousands of trained and experienced industrial engineers with well-established contacts that have won the trust and confidence of industry. This is not the result of the hysteria of the moment, but rather the result of patient and thoughtful consideration to this policy over the last twenty years, enabling us to understand and help solve the many problems of our customers. This has merited and won the customer's confidence to the extent that now he not only solicits, but expects and demands this assistance in solving his industrial heating problems. The importance of such a changed situation is perfectly obvious to all, and as proof and evidence that it actually exists, may I remind you that although the business index today is far below that of 1929, industrial gas sales are 50 per cent greater than in 1929.

GETTING down to cases, Mr. Rainey pointed out that through coöperation between the operating industry and the equipment manufacturers there have been developed inert atmosphere furnaces fired by gas which permit the maintenance of bright surfaces for metals, reduction of surface oxides on metals, and prevention of disintegration of metal surfaces. In these processes gas is used not only as a source of heat but also as a hardening agent, with the result that the American industry now has available better steel, bronzes, and other metals. In addition, there have been developed furnaces with heat-resisting alloy mechanisms for conveying materials through furnaces operating at

high temperatures, under accurate temperature control.

Mr. Rainey tells us that thousands upon thousands of defense products will be dependent in their making upon gas. To enumerate would be an endless task and perhaps an unwise disclosure of confidential information. But the author pointed to several of the more unique and interesting applications. First of all, gas will be required for the plain task of cooking, baking, water heating, and other operations necessary for the caring of an army which will eventually total three and one-half million men. Gas will be used in the preparation of both canned and packaged type foods. Gas will heat the water and cleaning solutions, and the processing of clothing and bedding will require gas in their preparation.

From the shirt which he puts on in the morning at the sound of reveille to the beds he lies on when the bugle blows taps, the soldier will handle scarcely an article in which gas has not played some part as a processing agent. His rifle will be tempered by it. His gas mask and goggles require gas by-products. The fashioning of artillery shells and barrels will be done by gas.

IN the chemical field as a by-product of manufactured gas, the most obvious war materials are the explosive bases, toluol, and other benzene homologs. Mr. Rainey tells us that research now under way on the subject of nitration of paraffin hydrocarbons may lead to commercial exploitation of explosives said to be far superior to TNT. Chloropicrin, another by-product, serves as a linking agent for other chemicals and is itself an effective lethal gas.

Gas is almost the sole fuel in chemical plants producing pure molybdenum and pure tungsten. A new and important development is the production of beryllium oxide which gives copper properties of hardness and resiliency equal to that of heat-treated carbon steel. In addition, it does not create any sparks under abrasion and is therefore an attribute of safety where explosive materials are processed.

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"SAYS HE'S GOT A NEW IDEA FOR TAKING CARE OF THE PUBLIC DEBT—A FEDERAL BAG-HOLDING ADMINISTRATION"

Then there is the more familiar use of gas in the manufacture of fluorescent bulbs which are used to illuminate the scene of many armament operations.

Modern high-tempered, high-speed armored tanks are another product of gas tempering and hardening. Industrial research has brought this process of hardening the surface of armor plate from 400 to 600 hours during the last war to approximately 100 hours with far superior results. For a medium-sized tank approximately 500,000 cubic feet of manufactured gas is required. Under a proposed production schedule of 200 to 300 tanks a day, the magnitude of this potential load is immediately apparent.

With respect to airplane manufacturing, Mr. Rainey stated:

The manufacture of an airplane is a continuing process of thousands of gas applications. Steel tubing for axles, struts, motor mountings, and fuselage is necessary and of such characteristics that weight, wind resistance, etc., must be at a minimum. Through various heating operations with gas, this tubing finally goes through a modern controlled atmosphere furnace in which gas is again not only the heating medium, but also furnishes that furnace atmosphere to produce the required product—a process unknown ten years ago; today, indispensable in aircraft manufacture.

Here again, the cockpits and other vital parts of a plane will carry armor plate, less in thickness than the tank, but produced exactly as before—with gas.

Propeller production will require large quantities of gas, not only in their production, but in their refinement. One very recent refinement is that of molded rubber ends for propellers. This consists of taking rub-

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ber, impregnating it with nitrogen at extremely high pressures, and subjecting it to gas heat for several hours. This product is said to give better bite and better feathering action to the propeller, resulting in better plane performance.

Besides the requirements of gas for plants engaged in airplane building, enormous quantities of gas will be required by those concerns taking subcontracts on aircraft business. To indicate the enormity of subcontracts of this type, a modern bomber will require from 400 to 600 subcontracts for the furnishing of parts and equipment, almost all of which will utilize gas in their process of manufacture.

ONE of the greatest users of gas, of course, will be the naval construction industry. Here again gas-fired furnaces, ranging in size from the ordinary "shoe box" for heating rivets up to the size of a 50-room house for the annealing of a complete gun turret 50 feet in diameter and weighing 40 tons and operating at 1,200 degrees temperature, are

found necessary. This operation extends over a period of 200 hours, using more than a million cubic feet of gas for each annealing operation. They are the largest in the world and when not in use for annealing they can be turned into ordinary workshops.

The new battleship *North Carolina* has three such triple turrets and is the fore-runner of eight new capital ships. It required 40,000,000 cubic feet of gas for the building and assembling of this ship of 35,000 tons. The keels of two 45,000-ton battleships will soon be laid down and will require even additional gas quantities.

Gas will definitely play an important rôle in the program of national defense and much of it has resulted from the research and technical improvements worked out since the last war, when the industry had little to offer except a fuel competing with other fuels.

Uranium—The Fuel of Utopia

FEATURE writers on science topics have been "going to town" recently with stories about the new mystery element, U-235. They have ascribed to it all the romantic virtues with which mediæval alchemists endowed the philosopher's stone—and many others beyond the ken of the Middle Ages. The new element, a derivative of uranium (our heaviest metal), has displaced that other infant prodigy of the uranium family, radium, as the world's most fascinating and valuable kind of metal. It contains astounding possibilities for the extension of man's activities in both peaceful and military fields, and is of special interest to the utility industry because one pound can, according to theoretical estimates, produce as much power as 5,000,000 pounds of coal or 3,000,000 pounds of gasoline.

Uranium is obtained from fairly large ore deposits found in Canada, the Belgian Congo, Colorado, Germany, etc. Like aluminum and some other rare metals in their early stages of commer-

cial development, it is expensive to refine, a 96 per cent oxide in 100-pound lots costing about \$2.65 per pound. Production in recent years has probably averaged several hundred tons per annum, principally in connection with the extraction of radium.

A few years ago scientists discovered that the atomic weight of an element is not necessarily the same for all atoms; a few "freaks" of slightly different weight are intermingled with the normal atoms, and are designated "isotopes." Probably the best known example is the double-hydrogen atom in "heavy water," produced at Columbia University and now widely used for biological research. Uranium has a normal weight of 238, but the isotopes 235 and (more recently discovered) 237 and 239 have special characteristics. Thus far they have been available only in extremely minute quantities for laboratory experiment, owing to the great difficulty of separating them from the normal-weight atoms. Divested of technicalities, the story is simply that

WHAT OTHERS THINK

when bombarded with slow-moving neutrons they split up into other elements, and in so doing part of the material of the atom turns into pure energy which, in accordance with Einstein's concepts, exceeds by several millions the energy obtainable from the chemical process of the burning of coal.

ACCORDING to press stories and the special articles which appeared recently in *The Saturday Evening Post*, *Colliers*, and other magazines, a race is now under way between scientists in America, Japan, and Germany to find ways to obtain the new isotopes in commercial quantities, and to develop means of using their energy output safely. Hitler is said to have put 200 scientists to work on the problem—perhaps with an eye to its immediate military uses in bombing, although it does not seem well adapted to that use. The immediate problem, of course, is to reduce its cost. Only about one atom in 140 in the metal uranium has the weight 235; hence, disregarding the enormous cost of separating the isotopes, the present expense would probably be around \$370 per ton. While the problem is too technical for discussion here, recent developments are said to be very promising in the effort to cull out the desired atoms. The giant cyclotrons and other atom-smashing machines now becoming available for use in United States laboratories may give us a special advantage in this work, although Hitler has also obtained some special laboratory facilities in Copenhagen and Paris.

While scientists remain cautious in their predictions regarding commercial uses of U-235, the press and magazine writers have the problem very neatly solved. The important point, they say, is that the fast-moving neutrons already present to some extent in the atmosphere (associated with cosmic rays), as well as those given off by the uranium itself when it explodes, cannot set off new explosions unless they are slowed down. Thus, U-235 cannot explode by itself, like a firecracker after the fuse is lighted. But if the neutrons pass through water

they are automatically slowed down, and can then become lodged in the nuclei of the U-235 atoms with explosive results for the particular atoms thus affected. The new neutrons released as a by-product of the explosion, if slowed down by a surrounding water jacket, automatically continue the disintegration. Thus the terrific heat generated by the atomic explosions can be obtained in controlled amounts over a period of time, instead of by immediate explosion of the whole mass, since all that is necessary is to control the amount of water in relation to the uranium. Naturally, part of the water is converted into steam by the heat, so that the water jacket becomes a steam boiler, and if the explosions are overrapid they are automatically slowed down when all the water is converted into steam.

THIS at least is the theory—whether it will work in practice can be determined only after a pound or so of the isotope is available for laboratory tests. The whole subject is still too nebulous to be of immediate concern to utility executives, but nevertheless it has great implications for the future of utility operation and finance. While exact figures are not available, our present annual production of uranium would probably yield only a ton or so of U-235. This amount would be equivalent, theoretically, to about 7,000,000 tons of coal. This would compare with about 400,000,000 tons of bituminous and 50,000,000 tons of anthracite produced last year. Hence present uranium production, even if perfectly utilized, would produce only about 1½ per cent of U-235 required to replace domestic coal production.

Since only about one-third of the average utility plant investment is in producing facilities, use of the new fuel should not make obsolete any substantial part of the utility investment, and the potential savings in fuel expense might far outweigh the cost of necessary plant changes. Our present distributing system would still be necessary, and in fact might have to be widely extended to keep pace with growing use of electricity.

—O. E.



The March of Events

St. Lawrence Tests Pushed

PRESIDENT Roosevelt informed Congress in a special message on October 17th that development of power on the St. Lawrence river was essential to meet a prospective shortage of power for industries in that region. He issued an Executive Order establishing a special commission to supervise preliminary borings and studies near the International Rapids.

The President stated that he had allocated \$1,000,000 of the special defense fund to the Federal Power Commission and the Army Corps of Engineers to finance this preliminary work. His statement was partly in line with an informal one made by the President at a previous press conference, except that at that time he said that the allocation totaled \$100,000.

As a result of the message and Executive Order it appeared that after a delay of many years Mr. Roosevelt had found a method of starting power development on the St. Lawrence which he advocated while governor of New York and by a means which avoids the stumbling blocks in Congress encountered in proposals for joint power-waterway development of the boundary river.

As an example of need for power development, the President informed Congress that the Aluminum Company of America had recently arranged for "the import of 30,000 kilowatts of additional power from Canada to meet the pressing requirements of its existing plant located at the very site of the proposed St. Lawrence project."

John D. Battle, executive secretary of the National Coal Association, on October 20th asserted that there was "no honest justification" for the proposed St. Lawrence hydroelectric project "either in peace or war." He said it had no real place in any sensible program for national or continental defense, and "the claims now advanced for it on that score are but a pretext and excuse for an unwise undertaking personally espoused by the President, which Congress has never approved and in the past has emphatically rejected."

The Chamber of Commerce of the State of New York also issued a statement asserting that "no evidence had been produced to justify the construction of a hydroelectric plant in the St. Lawrence river, as desired by President Roosevelt on the ground that it is essential for defense needs here [New York] and in Canada."

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Plans to Build Dam

THE Aluminum Company of America, preparing to meet the demand for more and more airplane aluminum, plans to build a power dam twice the size of Norris dam and another aluminum plant that would approximate, at least, the output of the Alcoa plant.

The dam, Fontana dam, will be near Andrews, North Carolina, on the Little Tennessee river, some 60 miles from Knoxville, and the plant will be near by in the center of a triangle formed by three Aluminum Company dams, two of which already are under construction. The plant, it was said, would employ some 5,000 men.

The company last month filed a declaration of intent with the Federal Power Commission in Washington to build Fontana.

Meanwhile, the National Defense Commission announced that the production of aluminum would be stepped up from 325,000,000 pounds in 1939 to 700,000,000 pounds in 1942 by means of new factories and power facilities.

Secretary of Interior Ickes subsequently announced the sale of an additional 97,500 kilowatts of Columbia river hydroelectric power to the Aluminum Company of America for national defense purposes. The power will be generated by the Bonneville Power Administration and delivered to the company's plant near Vancouver, Washington.

Coöperatives Sign for Power

FOUR Washington and one Oregon rural electrification administration coöperatives signed power contracts last month with the Bonneville-Grand Coulee Power Administration, it was announced by administration officials recently.

The Inland Empire Rural Electrification, Inc., operating a 1,500-mile system in Stevens, Spokane, Whitman, and Fairfield counties of Washington, signed the largest contract—for 800 kilowatts of power.

Other coöperatives signing included the Columbia County (Wash.) Rural Electric Association, 300 kilowatts; the Kittitas (Wash.) Public Utility District No. 2, 100 kilowatts; the Wasco (Or.) Electric Coöperative, Inc., 200 kilowatts; and the coöperative sponsored by Public Utility District No. 4, Lewis county, Washington, 400 kilowatts. All contracts are for twenty years.

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Arizona

Utility Regulation Hit

EMPLOYEES of the Phoenix transportation system may, under civil service rules, participate in the campaign to defeat the proposed initiative measure to place municipal utilities under the state corporation commission. Officials of the Amalgamated Association of Street Electric Railway Employees of America, AFL affiliate, whose union members operate, service, and repair the city's municipally owned street cars and busses, recently asked city officials for a ruling on the issue.

Under date of October 2nd, the city manager advised the union in a communication that employees would not jeopardize their civil service standing by participating, individually

or through their organization, in the campaign to defeat the measure. The union set forth:

"We are cooperating with the Arizona labor movement and its friends in vigorous opposition to the vicious spite measure, proposed by the legislature, that will appear on the ballot November 5th as constitutional amendment No. 104-105. The proposed amendment is a camouflaged attack on the principles of democracy, free enterprise, home rule, and public management and ownership of its utilities. It proposes to extort from the citizens of every municipality in Arizona the right to manage their municipally owned utilities.

"If this special interest legislation is not defeated, it will be burdensome to every one residing in and near incorporated cities."

Arkansas

Tentative Agreement

A TENTATIVE agreement on a contract for supplying electric power to 18 cinnabar mines in Pike and Clark counties in southwest Arkansas was reached at a conference of representatives of the Rural Electrification Administration and the Quicksilver Producers Association, representing operators, at a conference at Little Rock last month.

The REA allotted \$240,000 to the Southwest Arkansas Electric Cooperative of Texarkana to build 154 miles of lines into the area. Construction work had been held up pending an agreement on a contract.

The operators objected to signing a contract to purchase power for a 5-year period, declaring a decline in the price of quicksilver, which is produced from cinnabar, would make continued operations on a large scale unprofitable. The REA representatives agreed to a 3-year contract, subject to approval in Washington. The operators agreed to pay a monthly minimum bill when not operating, which would be 70 per cent of the maximum demand of the previous eleven months.

FPC Chairman Endorses Norfolk Dam

CHAIRMAN Leland Olds of the Federal Power Commission said recently a defense power survey had disclosed the need for hydroelectric power facilities in construction of the Norfolk dam in the White river basin of Arkansas.

In making public Olds' letter, Representative Ellis, Democrat of Arkansas, recalled that President Roosevelt had indicated he would urge legislation authorizing power fa-

cilities at Norfolk as a defense measure should the FPC suggest the need.

Olds said he had advised the Secretary of War on August 10th that the output of an initial installation of two units with a combined capacity of 60,000 kilowatts could be absorbed by the power market at the time the power project could be completed. Olds wrote Ellis:

"The first monthly reports to the commission, in connection with the continuing defense power survey, which it is making at the direction of the President, indicate that in the Arkansas-Louisiana-Mississippi area the load will this year run considerably above the net assured capacity available to serve the area. This is a danger sign, indicating a possible power shortage in the event of extreme low water conditions."

Preferential Rate Denied

REJECTION of Hope's demand for a preferential gas rate below the new overall state rate by the Arkansas Louisiana Gas Company was announced recently by the Hope Consumers Committee, following a conference with gas company officials.

The committee announced that it was proceeding with plans to establish a municipal gas plant, Hope having access to two gas pipe lines, that of the Arkansas Louisiana and the new line constructed from Cotton Valley, Louisiana, to Hope by the Louisiana-Nevada Transit Company.

At the October 1st meeting of the state utilities commission, when the new overall state gas rate was announced, the Hope Consumers Committee presented an ultimatum that unless Hope received a 30-cent domestic rate, it would establish a municipal plant. The Ar-

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kansas Louisiana Gas Company, now serving domestic lines in the city, requested the con-

ference with representative of the consumers committee.

California

Rate Cut Announced

RATES of the Vallejo Electric Light & Power Company will be reduced \$41,200 a year, effective November 1st, Commissioner C. C. Baker of the state railroad commission announced recently upon completion of the commission's investigation.

Of the total savings, domestic users will receive \$21,850 or a reduction of 9.1 per cent; commercial customers \$14,600 or a reduction of 11.1 per cent; power customers \$3,850 or a reduction of 10 per cent; and street lighting \$900 or a reduction of 2.5 per cent.

The new rates will enable Vallejo to enjoy one of the lowest charges for electric service for cities of its size in the state. Domestic customers will enjoy identical rates with those charged for the cities of Sacramento, Stockton, and San Jose, Commissioner Baker said. Commercial and power users will have considerably smaller bills than in those cities.

Ickes Rejects Hetchy Plan

SECRETARY of Interior Ickes on October 17th rejected San Francisco's "plan" for leasing electrical distribution facilities of the Pacific Gas and Electric Company. Officials said rejection was tantamount to invoking the city's agreement to call a municipal bond election if the plan failed.

Ickes listed six objections to the plan, the first of which said it did not give the city control of the company's facilities and therefore did not comply with the Raker Act, which required municipal authority over the use of power supplied from the government's Hetch Hetchy project in Yosemite National park.

Ickes had given San Francisco officials until next July to comply with the Raker Act, provided an acceptable plan was submitted by October 1st.

City Attorney O'Toole, in a letter to Secretary Ickes on October 18th, made formal application for extension of the December 17th bond election date, previously set by stipulation of Ickes. If the Secretary agrees, and providing present lease negotiations fail, the city will hold a revenue bond election on January 14th for purchase of the Pacific Gas and Electric Company's Hetch Hetchy power distribution facilities.

State Denies "Confiscatory" Power Policy

OPPPOSITION to the "confiscatory" policy of erecting public power distribution facilities

ties that parallel existing lines of private utilities was expressed by the State Water Project Authority last month.

In a meeting attended by John C. Page, U. S. Reclamation Commissioner, the authority proposed a joint meeting with the Federal government and representatives of the Pacific Gas and Electric Company to discuss the possibility of joint use of PG&E facilities either through lease or sale to the state "to prevent economic waste of parallel building."

Frank W. Clark, chairman of the state authority, said the administration has been charged with having a "program of confiscation of PG&E properties." This, he said, is not true. While the administration stands for the public distribution of Shasta dam power, it also is in favor of promoting free enterprise, he said, adding he felt it would be wise to negotiate with the power company for the purchase or lease of necessary lines to distribute Shasta power rather than to duplicate them.

The meeting was called primarily to work out a Federal-state plan to sell and distribute Shasta power when it is ready.

After Commissioner Page urged that the two governments stop "sparring around" on the question of responsibility in the project, the authority adopted a 3-point program designed to speed progress in the development of marketing facilities for Shasta power. The program provides:

1. The state will prepare a comprehensive power program calling for a survey of the existing market, transmission facilities, and for operation of the dam.

2. For promotion of public agencies as a market for Central Valley power.

3. Assistance to public agencies in determining methods by which they may finance themselves.

The program was said to be in line with Page's assertion that Secretary of the Interior Ickes wants the authority to "act as a clearing house and sales agency for Shasta power to public utilities."

Details of Rate Reductions

DETAILS of the \$5,000,000 reduction in the annual charges for gas and electric service of the Pacific Gas and Electric Company were announced recently by President Ray L. Riley of the state railroad commission.

In each case domestic and commercial customers receive the largest savings in their bills. The electric reduction, totaling \$2,000,000, will be an average cut of 5 per cent and the \$3,000,000 in reduced gas rates will average a 12

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per cent reduction. The new electric rates became effective October 8th and the new gas rates on October 22nd.

The reductions were brought about through the annual investigation of the company by members of the commission's staff. In the electric department the smaller user as well as the customer who uses electricity for cooking and water-heating purposes receives benefits. Rural customers were likewise accorded reductions.

Customers in the San Francisco bay metropolitan area, according to the commission's

breakdown, will save approximately \$2,000,000 annually. Domestic and commercial customers of the company will save \$1,232,840 a year—\$388,920 of it in electric bills, and \$843,920 in gas bills.

Reductions in electric rates ranging from 2.3 to 9.8 per cent became effective in Fresno, and reduced gas rates totaling from 9.8 to 13.3 per cent. It was estimated the reductions would save consumers \$35,630 annually on their electric bills and approximately \$117,000 on gas costs.

Colorado

Utilities Protest Assessments

ELECTRIC and gas companies in the state recently appealed to the state board of equalization charging that the assessed valuation of their properties by the state tax commission is "manifestly erroneous, excessive, disproportionate, arbitrary, discriminatory, unreasonable."

In a formal protest filed with the board by

Attorney Donald C. McCreery, the companies alleged there has been "an arbitrary, continuous, systematic, and substantial decrease in valuation of all classes of property assessed by the tax commission, except electric, gas, and telephone companies," since 1929.

The tax commission fixed the total valuation of electric companies this year at \$48,486,240 and valued gas companies at a total of \$7,373,600.

Illinois

Court Reaffirms Stand

THE state supreme court recently reaffirmed its previous ruling in the case of *L. W. Kreicker v. Naylor Pipe Company*, which bears directly upon recapitalization under the laws of the state. As a very similar case has been brought by certain preferred stockholders against the Illinois Power & Light Company, effect of the decision was said to diminish the prospect of such stockholders being able to enjoin the company from carrying out its 1937 recapitalization without retiring their preferred shares at call price.

In the Kreicker-Naylor Case the state supreme court ruled that minority preferred stockholders in a recapitalization are bound by the right of the two-thirds majority to change the company's charter. It also upheld the creation of a prior preferred stock and the allotment of such stock to assenting preferred

stockholders in exchange for preferred dividend accumulations without making any compensatory offer to nonassenting security holders.

An earlier decision of the court was handed down in April, this year. A rehearing was asked in which the attorneys for the dissenting preferred stockholders of Illinois Iowa Power Company participated. In May, 1937, certain holders of preferred of Illinois Iowa Power, formerly Illinois Power & Light, filed suit in the circuit court at Champaign, Illinois, seeking to enjoin the company from carrying out the plan of recapitalization proposed in March that year. They also asked the court to rule that the company be barred from paying any dividends to assenting preferred stockholders and common stockholders without first redeeming their nonassenting preferred stock at the call price of \$110 a share plus accumulated dividends.

Indiana

Power Lines Join in Defense

FOUR major electric utilities of Indiana, Ohio, and Michigan will be joined by transmission lines as a national defense move, by authority of the Indiana Public Service Commission. The commission last month ap-

proved interconnection of the lines of these systems:

The Public Service Company of Indiana, with headquarters in Indianapolis, serving central and southern Indiana; the Indiana General Service Company, of Marion, serving central and eastern Indiana; the Indiana &

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Michigan Electric Company, of South Bend, serving northern Indiana and southern Michigan; and the Cincinnati Gas & Electric Company, serving a part of Ohio.

Petitioners set out the tie-up would provide emergency and stand-by service for each company and enable those with more current than

they needed to dispose of it to those able to use it.

Two new 132,000-volt transmission lines to facilitate the interconnection are being built between Muncie and Cincinnati by way of Trenton, Ohio, and between New Castle and Anderson.

Michigan

Utilities Asked to Curb Vice

FOLLOWING a conference last month with representatives of four utilities and the Detroit Department of Water Supply, Prosecutor Voorhies indicated that he would ask the state public service commission to broaden a regulation covering refusal of a utility to give service to law violators.

Voorhies and Sheriff Andrew C. Baird of Wayne county called the conference to determine how the utilities could cooperate in checking the operation of gambling places and disorderly houses.

Last May, the Michigan Bell Telephone Company was given permission by the state commission to discontinue service to any subscriber on the order of a court of record, the state attorney general, or the United States dis-

trict attorney. The company also had asked that county prosecutors and city attorneys be included, but these were not included in the regulation issued by the commission. Voorhies said he would seek to have these officers added.

Other utilities represented were the Consumers Power Company, the Detroit Edison Company, and the Michigan Consolidated Gas Company.

Sheriff Baird pointed out that a utility company and its employees are equally guilty if an employee knowingly furnishes service which is used in violation of the law, but said he "did not wish to do anything that would make snoopers out of employees."

Utility representatives, on the contrary, asserted that the companies would be liable to civil action "if we guessed wrong" in refusing service.

Nebraska

Power Deal Authorized

THE Nebraska City council recently gave Guy C. Myers, New York promoter, the "go ahead" signal to purchase holdings of the Central Power Company in the city and surrounding territory for \$1,150,000. Gas and water as well as the electric facilities of the company would be taken over by the city if the deal is consummated.

The decision was made at a meeting of the city commission last month and the action was unanimous. It may signalize the transfer of all Central Power properties in the state to municipalities, it was said.

Whether the properties would be acquired by the Consumers District to be formed in Nebraska City or through the Consumers Public Power District of Columbus would be decided later. Myers' first proposal was to act through the Columbus set-up which would make the actual purchase and then lease the properties to Nebraska City.

If the deal goes through the city will drop condemnation proceedings against the company. The suit has been fought through Federal courts and was said to be ready for the actual condemnation hearing before three district judges.

Agreements were signed on October 11th in which the Consumers Public Power District of Columbus would gain momentary possession of Southern Power Company facilities at Superior and adjacent towns, President C. B. Fricke of Consumers District announced recently.

The properties would be turned over to the city of Superior and the Tri-County Public Power and Irrigation District for operation as soon as the bond issue of \$1,100,000 has been floated.

Under terms of the deal Tri-County and the city of Superior were to take over the properties about October 21st. Tri-County would assume \$900,000 of the bond issue and Superior \$200,000.

The bonds were signed on October 17th by the state auditor of Nebraska preparatory to transfer of the Southern Nebraska Power Company to the Consumers Public Power District.

"Little TVA" Head Resigns

DR. D. W. Kingsley, president of the Tri-County Public Power and Irrigation District, last month resigned under fire. His removal was expected to precipitate a fight be-

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tween those advocating that the vast development be used primarily for irrigation purposes and a group determined that its main function be the production of public power.

The district involved is a \$36,000,000 project, the largest unit in Nebraska's federally financed hydroelectric development. Most of the program is concentrated on the construction of a huge earth-filled dam, the second

largest of its kind in the world, which is scheduled for completion this month.

Kingsley had been head of the Tri-County District since its inception five years ago. His resignation followed a report made to the district's board of directors by PWA authorities in Washington. The report was made, it was said, after an investigation of many complaints against him.

Ohio

Company Report Approved

THE state utilities commission last month approved a report of the East Ohio Gas Company showing that all but \$21,931 of a stipulated \$468,751 refund had been made to Akron consumers.

The company was released from its \$750,000 bond.

The commission directed, however, that the company "continue efforts to make the refund complete."

Under an agreement May 2, 1939, terminating the East Ohio's appeal from an Akron rate ordinance, the company was to refund to consumers 13 cents a month for the actual time service was used between May 19, 1933, and September 30, 1939.

Oklahoma

Utility Networks Strong

THE state corporation commission reported last month in another of its national defense surveys that there should be no fear of a shortage of power or natural gas in Oklahoma in event of an emergency. The commission is making a survey of all utilities under its jurisdiction to determine what facilities would be available in case of an emergency. The report said:

"With the power now available through present generating plants and interconnections, the many reserves and the miles of electric and gas transmission lines, the outlay presents a picture of progress capable of meeting the probable demands in the event of an emergency or an industrial boom. The network of power lines, owned and operated by the private utilities either enter or traverse all 77 counties within the state.

"With the completion of the Grand River dam and the Denison dam under construction, expansion by private company plants will be eliminated for several years because of the potential capacity available from these two projects. This will also augment the power pool to meet all power needs.

"In the case of abnormal demands on transmission systems, the natural gas industry would be more vulnerable to sabotage than the electric companies, as the transmission lines extending from the various fields to the markets in most cases permit only a one-way flow of gas."

Court to Hear GRDA Suit

THE theoretical question of whether Governor Phillips can stop completion of the Grand River dam, which already has been completed, will be argued before the United States Supreme Court. The court on October 14th agreed to review the 3-judge Federal court ruling which enjoined the governor from interfering.

The governor insisted on carrying the appeal to the highest court, however, declaring he did not want a precedent to be set whereby a Federal court could stop proceedings of a state court.

Governor Phillips said Randell S. Cobb, assistant attorney general; Villard Martin, Tulsa; and J. G. Dudley, Oklahoma City, special attorneys, would present the case for the state.

Oregon

Utility Leaders Meet

EIGHTY leaders in the vital fields of power, transportation, and communication last

month met at the call of State Public Utilities Commissioner Ormond R. Bean in Portland to plan for the coordination of Northwest facilities to obtain effectiveness for either na-

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tional defense purposes or in time of major emergency.

Bean said the group would serve as a clearing house for information regarding transportation, communication, and power facilities which would be available in time of national or local emergencies.

Berkeley Snow, secretary of the Northwest Electric Light & Power Association, was named chairman of the general committee on power. R. J. Collins, general commercial engineer for Pacific Telephone & Telegraph Company, is chairman of the general communications committee, while J. C. Albright, assistant general manager of Union Pacific Railroad Company, is chairman of the railroad passenger and freight committee. Ben S. Morrow, city engineer, is chairman of the general committee representing miscellaneous utilities (gas, water, etc.).

Coöperative Signs Contract

THE Nehalem Valley Coöperative Electric Association of Clatsop county recently signed a 20-year contract for the purchase of 150 kilowatts of power from the Bonneville-Grand Coulee Power Administration.

The Nehalem coöperative was the first REA project organized in the state of Oregon. It was the seventh to buy Columbia river power from the government.

The coöperative will purchase prime power at the rate of a quarter of a cent per kilowatt hour of use, plus a demand charge of 75 cents per kilowatt per month. The contract provides for first deliveries of electricity in the near

future at the Nehalem coöperative's substation at Olney.

The coöperative is now purchasing power from the Pacific Power & Light Company which serves the Astoria area and which already has executed a contract for the purchase of Columbia river power to meet its increasing consumer demand in the area. This contract provides that the company will institute immediate deliveries to the coöperative until the Bonneville-Grand Coulee Power Administration's 82-mile transmission line, now under construction between Portland and Astoria, is completed.

Veto Overruled

AUTHORITY of the state hydroelectric commission to create people's utility districts despite that part of the district has voted against being included was upheld in an opinion of the state supreme court last month.

The opinion, written by Justice Harry Belt, affirmed Circuit Judge Fred W. Wilson of Hood River county. The opinion involved the legality of the Hood River people's utility project.

The city of Hood River voted against being included in the Hood River Public Utility District. A group of taxpayers contended that the hydroelectric commission exceeded its authority when it ordered creation of the district to include the rural areas of the county which were favorable to the project.

The supreme court ruled that the state legislature legally delegated this power to the hydroelectric commission.

Pennsylvania

Commission Approves Deal

THE state public utility commission on October 16th authorized the sale of large quantities of natural gas by the Peoples Natural Gas Company of Pittsburgh to an affiliated company in New York state, and its delivery through a pipe line of the Peoples Company.

Democratic minority members of the PUC differed sharply with the Republican majority which authorized the transaction, and Commissioner Thomas C. Buchanan of Beaver charged that terms of the sale will be burdensome to Pennsylvania consumers.

The Peoples Company was awaiting a PUC decision on a \$1,263,000 rate increase for its western Pennsylvania consumers, refused by a Democratic PUC majority last February, and allowed by the state superior court pending a rededuction by the commission.

The commission majority authorized the sale of natural gas by the Peoples Company to the New York State Natural Gas Corporation at 30.75 cents per thousand cubic feet. Both

companies are subsidiaries of Standard Oil of New Jersey.

The state commission stipulated that its permission for the sale was not to be considered as approval of the rates, and indicated that the raise would be scrutinized in connection with the pending rate case involving the company's western Pennsylvania increase.

Ownership League Probe

THE Pennsylvania Public Ownership League on October 11th was made an additional party respondent in the state public utility commission's investigation of John J. Lipko and the Public Utility Consumers Service, Inc.

The commission found that although Lipko and the Pennsylvania Public Ownership League, Harrisburg, which he heads, filed a complaint against rates of the Pennsylvania Power & Light Company, and although the case was scheduled for hearing numerous times, no one appeared at the hearing in behalf of the complainants.

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Natural Gas Plans Dropped

WITHDRAWAL of the Metropolitan Edison Company's application for permission to substitute natural gas for the manufactured product in eastern Pennsylvania was hailed by Public Utility Commissioner Richard J. Beamish as a "complete victory" for the anthracite industry. Harold J. Ryan, Reading, attorney for the utility, asked for a withdrawal of the application before the PUC "without prejudice," but cited no reasons for the action.

Metropolitan Edison's plan was to pipe natural gas into Elizabethtown and Marietta, Lancaster county, and into suburbs of Harrisburg, from western Pennsylvania lines of the Manufacturers Light & Heat Company, Pitts-

burgh. The proposal was vigorously opposed at hearings before the PUC by the Anthracite Institute and the United Mine Workers of America.

Beamish joined with Thomas Kennedy, UMW international executive and former lieutenant-governor, and Herman J. Goldberg, institute counsel and former public service commission member, in condemning the gas substitution as a serious infringement on "natural" anthracite territory.

Beamish charged the natural gas interests were using the utility as a "trojan horse to invade the hard coal areas."

Metropolitan Edison planned to convert a small manufactured gas plant at Marietta to a natural gas dispensing unit.

South Carolina

Defense Projects Urged

CONGRESS received a petition recently urging the Federal Power Commission designate the Santee-Cooper, Clark's Hill, and Lyles-Ford tricity power projects in South Carolina as necessary to the national defense program.

The resolution, adopted by the South

Carolina Council for National Defense, was presented to Congress by Representative Hampton P. Fulmer of South Carolina, and referred to the House Committee on Military Affairs.

Construction work on the Santee-Cooper power project already is under way with Federal funds, but the other two developments are in preliminary stages.

Tennessee

Exemption Upheld

CHANCELLORS R. B. C. Howell and James Newman of the two divisions of the Davidson County Chancery Court on October 10th held that the Tennessee Suburban Utilities District Act of 1937 is constitutional in disposing of two cases attacking the validity of the statute.

The act authorizes county judges in Tennessee to incorporate "suburban utility districts" and to give these districts the status of mu-

nicipal corporations, exempt from taxation.

The state railroad and public utilities commission, charging that the act is unconstitutional, assessed for taxation two such districts in Davidson county, the First Suburban Water Utility District and the Madison Suburban Utility District. The two water corporations filed suit in the two chancery courts asking declaratory judgment as to whether the law is constitutional. Injunctions to prevent further steps to collect the tax were also granted, it was reported.

Texas

REA Considers Plant

THE Rural Electrification Administration was recently reported by Clarence A. Windor, director of the REA engineering and operations division, to be considering plans to build a \$1,000,000 generating plant in northeast Texas. Mr. Windor made the announcement at Fort Worth at a meeting of representatives of the 66 rural electric cooperatives in the state.

C. O. Falkenwald, director of the REA di-

vision of cooperative relations, said plans also were being considered for the delivery of seven mobile generating plants for use in all parts of the state.

The \$1,000,000 generating plant would be located at Gilmer, according to present plans, and would serve about 15,000 members of seven REA cooperatives in Panola, Rockwall, Rains, Hopkins, Franklin, Hunt, Wood, Van Zandt, Smith, Franklin, Titus, Camp, Morris, Bowie, Marion, Harrison, Upshur, Rusk, and Cherokee counties.

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Virginia

Franchise Renewed

THE Fredericksburg city council last month formally accepted a renewal of the franchise of the Virginia Electric & Power Company, to furnish current to the city for another fifteen years, subject to a 15-year extension. The power company was the only company to submit a bid for the contract.

Estimated annual return to the city under the new franchise as compared to the terms

of the former contract was given at \$33,802 including payment by the company for use of the city water rights in the Rappahannock.

Chief features of the new franchise are free street lights, a white-way system, reduced rate for city current, and payment for use of city water rights.

The council in August voted for renewal of the franchise but law required the advertising for bids before actual acceptance. The former franchise expired March 27, 1939.

Washington

Hits Tax Group

LAMBERT McAllister, counsel for the Federal Power Commission, which was conducting a hearing into reported political activity of private utilities in the interest of Public Utility Initiative 139, recently charged in Seattle that the Washington State Taxpayers' Association was attempting to hamper the FPC investigation.

Initiative 139 would require a vote of the people before a PUD could incur financial obligations.

Floyd Oles, director of the taxpayers' association, refused to produce records of his group for scrutiny by the FPC. Private power companies, which were respondents in the hearing, have made contributions to the taxpayer group, it was said.

McAllister charged that attempts "have been made to delay us." Ivan L. Hyland, counsel for Oles, said:

"We are not trying to obstruct the hearing. We believe the FPC has no right to the record. If, however, the court decides we must produce the books then we will. I will say this, if the FPC gets the books, they won't get much, anyway."

Oles charged that the FPC hearing was "an alphabetical witch-hunt." He joined with Arthur A. Denny, former association treasurer, and Robert H. Beebe, Edmonds, chair-

man of the association's executive committee, in a flat refusal to testify concerning details of the association's operations.

City Light Sues Boeing

SEATTLE City Light on October 7th filed a superior court action attempting to require the Boeing Aircraft Company to purchase electric power only from the municipal utility. The complaint recited that April 13, 1936, the Boeing Company entered into a contract to purchase City Light power exclusively, but that the company now asserts it is not bound under the agreement to use only City Light.

P. C. Spowart, sales and contract manager for City Light, said the suit was being filed because all reasonable attempts at settlement of the matter involving a clear and specific City Light contract "have been unavailing and because under the circumstances we feel obliged in the public interest and the protection of the city's right to protect these rights by legal processes where necessary. The Boeing officials seem to desire service from both utilities (City Light and Puget Sound Power & Light Company) and the question of how much power should be served by the city and how much by the private utility is the basis of this suit, which asks the courts to determine what rights the city has under its contract."

Wisconsin

Power Rate Cuts

ABOUT 76,000 residential customers of the Wisconsin Power & Light Company will save \$147,500 a year on their electric bills through a rate reduction filed by the company and approved by the state public service commission, the commission said last month.

One group of communities, in which about 33,000 home users of electricity will save \$65,-

000, includes Janesville, Beaver Dam, Fond du Lac, Beloit, and Sheboygan.

In a second group, about 15,000 customers will save about \$37,800 a year. Communities of the Madison area in this classification are Baraboo, Darlington, Dodgeville, Mauston, Mayville, Edgerton, Milton, and Milton Junction, Mineral Point, Monroe, and Portage.

The reduced rates became effective on all bills delivered on or after November 1st.

The Latest Utility Rulings



Powers of Commerce Commission to Prescribe Hours of Service Are Exclusive

IN a suit by employees of a motor truck operator to recover compensation for overtime services under the Fair Labor Standards Act, a Federal District Court in Oklahoma held that the power granted to the Interstate Commerce Commission over the matter of hours of labor of motor truck drivers is exclusive. By the exemption in the Fair Labor Standards Act Congress meant to recognize the power that had been granted to the Interstate Commerce Commission. For this reason the suit was dismissed.

The truck drivers contended that since the Interstate Commerce Commission had never exercised this power and had not found it necessary to make reasonable requirements to promote safety of operation and to prescribe maximum hours of employees and standards of equipment, and since that commission had failed to

exercise the power granted to it by Congress, such power did not exist, and under the Fair Labor Standards Act the administrator of the act had power and had declared that the exemption above referred to and provided in the act ceased to be applicable. The court answered as follows:

Certainly, the failure of the Interstate Commerce Commission to prescribe maximum hours of service of employees does not divest the commission of the power granted to it by Congress. Its failure to so prescribe maximum hours of service might be due to the fact that the commission did not find that it was necessary. The expression, "if need therefor is found," is a limitation on the commission in prescribing maximum hours of service but is not a limitation on the power granted by Congress to the commission.

Bechtel et al. v. Stillwater Milling Co. et al. 33 F Supp 1010.



Power to Restrain Management in Declaration of Dividends

THE Securities and Exchange Commission, in imposing a dividend restriction as a condition of authorizing the issuance of a note to finance the acquisition of securities by a registered holding company, has traced the genesis and development of the Public Utility Holding Company Act with particular reference to the restrictions on managerial judgment which were intended to be imposed by the statute. Counsel for the holding company had urged that the imposition of a restrictive condition would constitute an unwarranted intrusion on managerial discretion. The commission said:

We think this contention is without merit,

for it is our statutory duty to determine whether the proposed transaction conforms to the applicable standards of the act. Of course, managerial judgment is one of the facts to be considered in arriving at our statutory findings. But it is equally clear that we must condition our approval of the issuance of utility securities—even if management deems unconditional issuance desirable—if we find that conditions are necessary to achieve the standards of the act. Indeed, had Congress intended that there be no interference with transactions proposed by management, there would have been no need for such a regulatory act.

If the text of the act were not clear enough on this point, the legislative debates and history reveal that in every stage of the promulgation of the statute, Congress intended and desired that the statute impose a duty upon the commission to require that

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transactions proposed by the management of public utility holding companies and their subsidiaries be exercised in conformance with the standards of the act.

In an appendix to the decision the commission discussed the duties imposed upon the commission with respect to securities. Restriction by legislation on the issuance of securities of public utilities was said to be nothing new. State commissions and the Interstate Commerce Commission have had such authority. The novelty of the 1935 act was only that it gave an agency of the *Federal* government supervision over or veto power with respect to the issuance of *utility* securities. It was said to be evident from a study of the history of the act that Congress intended the commission to impose terms and conditions upon approving the issuance of securities and that Congress deemed such powers of supervision over management to be of particular necessity and importance.

The proceeding before the commission

was for the purpose of securing authorization for a registered holding company to acquire securities of Union Water Service Company. It was noted that acquisition of additional water properties might increase complication of the corporate structure, but the justification offered was that this was only temporary and would not impede the ultimate carrying out of the provisions of § 11. It was stipulated that if the holding company did not dispose of its electric utility properties within a period of six months, the company would consent to the entry of an order under § 11 requiring their disposition.

Serious consideration was given by the commission to the "disproportionately small investment" in common stock, in determining whether a note issue to finance the acquisition should be permitted. Even so, having in mind all the facts, authority was granted subject to the dividend restriction condition. *Re Northeastern Water & Electric Corp. (File No. 70-96, Release No. 2314).*



Public Interest Offsets Operator's Fault in License Revocation Case

THE Federal Communications Commission, after revoking the license of a partnership operating a broadcast station, upon further consideration revoked its order and permitted operation to continue. Public interest was held to outweigh the operator's delinquency.

The commission found that the station owners had misrepresented to the commission their intentions as to the financing, construction, control, and operation of the station in securing their original construction permit and station license. In addition, they had transferred the rights granted them to others without the consent of the commission, in violation of the Communications Act. These facts taken alone, said the commission, would support an affirmation of the commission's order of revocation. There were other facts, however, which gave the commission cause and which led to a dif-

ferent conclusion. The commission made the following statement:

These violations were committed by the respondents either prior to the commencement of the operation of this station or within less than six months thereafter. Though ignorance of the law is no excuse, yet their conduct must be viewed in its true light as that of men at the outset of their career in radio broadcasting without any previous experience with the commission.

After the transfer the other parties had released and relinquished to the operators all their interest in the station, and in 1937, within six months of the time the station began to operate, the applicants for the license had obtained full control and ended all affiliation of the others. Since that time the station had been operated in the interest of the public. The commission continued:

In determining whether to revoke the license of a radio broadcast station for

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false representations to the commission and other violations of the Communications Act, the commission is faced with competing considerations. The commission's primary duty is to the listening public and, in dealing with a licensee, the commission must be guided by this primary duty. On the other hand, if the commission is to carry out its function of granting and denying applications for licenses, it must obtain true and accurate information from those who seek to operate radio stations and must take disciplinary action against those who make false repre-

sentations to the commission. But discipline should not be inexorably applied when station licensees demonstrate to the commission, as these respondents have now done, that they are ready to act in good faith.

To revoke their license at this time would deprive the community of the service of this station when there is no reason to believe that the respondents will not continue to operate it in the public interest.

Re Navarro Broadcasting Asso. (Docket No. 5839, B-118).



State Commission Asserts Jurisdiction over Contract for Export of Power

ADoption of the Federal Power Act, giving the Federal Power Commission regulatory jurisdiction over interstate deliveries of power, did not preempt the field of regulation of such matters so as to deprive a state commission of its jurisdiction over a contract for the sale of power to a company operating in another state, it was held by the Wisconsin commission. The contract had been approved by the Federal commission and was filed with the Wisconsin commission for information without the company conceding that the state commission had jurisdiction.

Congress has recognized that generation of electric energy is not a part of interstate commerce and that it is only the transmission of that energy which properly comes within the scope of Federal regulation. There was said to be a clear recognition that states and state commissions have a right with respect to hydroelectric energy that may be generated otherwise than by the use of dams

or other facilities owned by or under the control of the Federal government.

It was said to be obvious that the commission today has the same authority it has had to state how much energy developed by Wisconsin dams shall be exported beyond the state boundaries. The commission continued:

In so far, therefore, as the contract herein involved relates to the amount of energy which the Wisconsin company is obligated to sell to the Minnesota company, that contract is subject to our regulatory power as provided in our statutes. Furthermore, the Federal Act (§ 207) provides that the Federal Power Commission "shall have no authority to compel the enlargement of a public utility's generating facilities," nor to compel the sale of energy "when to do so would impair its ability to render adequate service to its customers."

It is our conclusion, after considering the provisions of the Federal Power Act, that it is within our jurisdiction to grant or refuse approval of this contract.

Re Northern States Power Co. (2-U-1600).



Federal Court Barred from Requiring Interchange Service by Union Workers

THE Norris-LaGuardia Act, limiting the power of Federal courts to issue injunctions in labor disputes, does not carry any exception in favor of the Motor Carrier Act, and this latter act does not suspend the Norris-LaGuardia

Act or vest the court with jurisdiction to issue such injunction, according to a holding of the Federal District Court for the middle district of Tennessee. The court, accordingly, refused an injunction to require motor carrier companies and

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their employees to deliver and to accept freight from another company which was being picketed by a labor union.

The company seeking the assistance of the court had been able to retain part of its employees after the labor union attempted to force a closed shop agreement upon it. Some employees had quit work because of fear of the consequences of failing or refusing to comply with union demands. Employees of the other companies had closed shop agreements which provided that their employers should not require them to cross picket lines. Under these circumstances the court concluded that the case involved and grew out of a labor dispute as defined by the terms and provisions of the

Norris-LaGuardia Act. It was said to be apparent that if the court should issue a mandatory injunction requiring the other companies, their agents, servants, and employees to deliver freight to and to accept freight from the plaintiff company, the practical effect would be to make defendants, who were members of the labor union in question, accept and deliver freight from the plaintiff company in violation or partial violation of their contract and in direct conflict with the efforts of the union to organize the plaintiff's employees and to require the plaintiff to sign a closed shop contract. *Southeastern Motor Lines, Inc. v. Hoover Truck Co. Inc. et al.* 34 F Supp 390.



Charges to Municipal Plant for Service by Company Having Optional Schedule

THE city of High Point, North Carolina, failed in an effort to recover from the Duke Power Company amounts voluntarily paid for electricity under schedules which it asserted to be inapplicable. The company was allowed to recover, for current subsequently sold, only the amount calculated under an optional rate schedule which the city insisted upon but which the company refused to apply except on condition that the city enter into a yearly contract containing a restrictive clause.

After termination of a contract for the sale of electricity at specified rates, service was continued pending the negotiation of a new agreement. The company offered to contract to furnish service under an optional schedule based upon a demand and energy charge if the city would agree not to distribute electricity for power purposes in competition with the company. No such restriction was contained in the filed schedule. The company rendered monthly statements based upon the rates contained in the old contract, computed on an energy charge basis, and the city paid these bills up to April, 1938. Thereafter it refused to make any payment and it prosecuted

an action to recover the difference between the amount paid and the amount which would be due under the optional rate schedule.

Since the city had elected to take current on a basis from month to month and such basis was not provided for under the optional schedule, the power company, in the opinion of the court, was not exacting an unlawful rate by billing the city for current under the other schedule. "There can be no doubt about the right of a public service corporation to maintain optional schedules," the court added. The rates charged were not illegal because they were in accord with schedules on file. The city was not entitled to recover the amount paid, since it is a settled rule that where a party with the knowledge of the fact or where the means of knowledge or information is in the reach of the party paying and he voluntarily makes a payment he cannot recover any part of it.

With respect to charges for current billed but unpaid, the court held that the city was entitled to make payment on the basis of the optional rate schedule which it had requested and which the company had refused to it.

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In the course of the opinion the court also discussed the duty to serve a competitor, stating:

Under the law of North Carolina it is well settled that one public service corporation cannot be made to supply a competitor, another public service corporation of like character, with the material to enable the latter to discharge its duty to the public. A public service corporation must make available to the public its service and it meets the requirement when the service is made available. If it renders the service therefor it is under no obligation to extend that serv-

ice to another public service corporation to compete with it.

It was also pointed out that the city was acting in a private capacity as distinguished from a governmental capacity in purchasing electricity, which it was reselling for a profit. The exercise of its powers for the private advantage of the city was said to be subject to the same rules that govern individuals and private corporations. *City of High Point v. Duke Power Co.* 34 F Supp 339.



Accounting Requirements Prescribed for Electric Utility Company

THE Utah commission, in an investigation of the rates and practices of an electric company, orders that a complete new bookkeeping system should be installed and kept in conformity with the classification of accounts prescribed by the commission. Records of the company, it was said, should contain only entries pertaining to its operation. Entries relating to the personal business of its management should be excluded.

The company was required to adopt and follow a consistent policy in regard

to the treatment of depreciation. It was ordered to charge as an operating expense 3.2 per cent of the original cost of the construction of its depreciable property as an annual charge for depreciation expense until the experience of the company warrants changing that rate. In setting up the original cost of construction of its properties on the books, the company was required to set up a depreciation reserve determined for straight-line depreciation accounting. *Re Swan Creek Electric Co.* (Investigation Docket No. 29).



Obstruction to Metering of Gas Justifies Service Denial

THE existence of an appliance in a gas meter which interferes with the registration of gas consumed is presumptive evidence that the person to whom the gas was being furnished is responsible for the existing condition under New York Penal Law, § 1431-a. This statutory presumption, says the New York Supreme Court, is applicable to civil actions or proceedings. Such was the ruling in a proceeding by a gas customer to compel a public utility to supply gas.

But even without the assistance of the statutory presumption the evidence permitted but one logical inference; namely,

that the customer who had exclusive control of the premises was chargeable with the interference.

Under such circumstances, the court held, the statutory obligation to supply service terminated.

Obstruction of the meter, it was said, destroyed the only accurate means of determining the exact amount of gas consumption. Based on the company's experience in the gas business, proof had been offered and received to show the approximate amount of such consumption during the period that the meter was not registering, and its value. That proof was held to be sufficient.

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The court approved the principle that where a wrong is of such a nature as to preclude the ascertainment of the amount of damages with certainty, it would be a perversion of fundamental principles of justice to deny all relief to the injured person. In such a case, while the damages may not be determined by mere speculation or guess, it will be enough if the evidence shows the extent of the damages as a matter of just and reasonable inference, although the result be only approximate. The wrong-

doer is not entitled to complain that they cannot be measured with the exactness and precision that would be possible if the case for which he is responsible were otherwise.

The court found from the proof the amount due for unmetered gas which the customer had refused to pay for. Such failure, it was held, warranted the company's refusal to restore the service. *Rocha v. Consolidated Edison Co. of New York, Inc.* 22 NY Supp (2d) 157.



Other Important Rulings

THE Circuit Court of Appeals denied a rehearing on its dismissal of a petition to review an order of the Federal Power Commission finding that certain companies were natural gas companies within the meaning of the Natural Gas Act and that it was necessary to institute an investigation, on the ground that the Natural Gas Act does not permit a review of a mere procedural order directing that a proceeding be instituted. *Canadian River Gas Co. et al. v. Federal Power Commission*, 113 F(2d) 1010. For earlier opinion, see 34 PUR(NS) 448.

A New York court held that the Securities and Exchange Commission, in approving the sale of utility property to the Tennessee Valley Authority, could impose the condition that bonds issued by the seller be redeemed at 105 pursuant to their terms. *Nachman et al. v. Tennessee Electric Power Co. et al.* 21 NY Supp (2d) 280.

The United States Court of Appeals for the District of Columbia held that the owner and operator of a radio station, appealing from an order of the Federal Communications Commission which granted to another a radio station construction permit, was a person aggrieved within the purview of the Communica-

tions Act, even though he could not resist the granting of the license on the ground that the resulting competition might injure him. *Evans v. Federal Communications Commission*, 113 F(2d) 166.

The Colorado commission held that it has authority to make a certificate non-assignable and that it can alter and change a certificate and eliminate any restrictions upon its assignment only upon a showing that public convenience and necessity require such changes or elimination to be made. *Re Rodgers* (Application No. 2061-A, Decision No. 15858).

The Colorado commission, in authorizing a transfer of a private carrier permit, stated that such a permit is in the nature of a license to operate and to that extent is a property right, and specific statutory authority is provided to transfer the same with commission consent. *Re Kelly* (Application No. 5324-PP-A, Decision No. 15849).

The Missouri commission held that telephone rates making available a percent figure of 7.7 for depreciation, Federal and state income taxes, and return are not excessive. *Re United Telephone Co.* (Case No. 9812).

NOTE.—The cases above referred to, where decided by courts or regulatory commissions, will be published in full or abstracted in *Public Utilities Reports*.

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RECOMMENDATIONS OF COURTS AND COMMISSIONS



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FEAR v. KANSAS CITY POWER & LIGHT CO.

MISSOURI PUBLIC SERVICE COMMISSION

Ernest D. Fear

v.

Kansas City Power & Light Company

[Case No. 9855.]

Discrimination, § 14 — Rates — Classification.

1. A rate schedule should not contain unduly preferential charges between customers of a given class, and the customers in one class should not be served at the expense of the customers in other classes, p. 132.

Discrimination, § 62 — Single meter — Separate apartments.

2. To require an electric company to furnish through a single meter service to separate dwelling apartments located on adjoining real estate, cumulated under one ownership, but rented to several tenants, would create a discriminatory condition, p. 132.

Discrimination, § 64 — Single meter — Commercial residential service.

3. One who receives through one meter lighting service for the apartment which he owns, and in which he resides, and electricity for the operation of heating plants in several rented household apartments located on adjoining real property, but owned by him, receives such service under preferential conditions, as the heating service approaches the commercial classification and the lighting service the residential classification and the combined service as taken through one meter, cannot be classified as either commercial or residential, p. 132.

[August 13, 1940. Rehearing denied August 28, 1940.]

COMPLAINT against light and power company which required owner to install separate meters for each of his apartments located on adjoining real estate; dismissed.

By the COMMISSION: This case is before the Commission upon the complaint of Ernest D. Fear, whose post-office address is 309 Ward Parkway, Kansas City, against the Kansas City Power & Light Company, a Missouri corporation, engaged as a public utility in the rendition of electric service to the inhabitants of Kansas City, Missouri. The post-office address of the defendant is 1330 Baltimore avenue, Kansas City. On notice of the filing of the complaint the defendant answered denying the allegations made by the complainant and states that it is rendering service in conformity with the rules contained in its schedule filed with this Commission. Following a hearing at Jefferson City the case was submitted upon the record. All parties interested had been given proper notice of the date of the hear-

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ing and were given an opportunity to be heard.

The complainant states that he owns a tract of land in Kansas City, roughly triangular in shape, the south line of said tract bordering 330 feet on 49th street, the east line bordering 275 feet on Wornall road, and the north-east-southwest line fronting on Ward Parkway a distance of 370 feet. A sketch is attached to the application showing in more detail the shape of the tract in question.

Complainant further states he has on the aforesaid tract of land five duplex properties each containing two residential apartments. One of the duplex buildings faces on Wornall road, the other four on Ward Parkway. The respective street numbers are as follows: 4814-16 Wornall road, 401-3 Ward Parkway, 405-7 Ward Parkway, 409-11 Ward Parkway, and 429-31 Ward Parkway. The complainant resides in the apartment having the address 409 Ward Parkway. The other apartments are rented to tenants.

It is shown that each of the ten apartments has its own individual electric service meter, and that the electric service required by each tenant is delivered and metered to each tenant by the defendant on bills rendered the tenant, and each tenant pays the charges for electric service consumed in the apartment occupied by him.

The landlord furnishes heat as part of the rental service to all the apartments, and in doing so operates heating plants, consisting of a hot-water boiler located in the basement of each of the five duplexes, or five boilers heated by gas delivered through a single gas line and metered through a

master meter located in the basement of the complainant's apartment.

As a part of the equipment incidental to the operation of the heating units, the complainant states he has installed in the water line of each boiler a small circulating pump operated by a one-eighth horsepower motor, thermostatically controlled, which cuts in and out whenever required to regulate temperatures, which in turn automatically operate the motor as required for the heating of the buildings. He claims these motors are operated by a single electric circuit that carries the energy from one electric meter located in the basement of the complainant's apartment. This meter also serves the electric equipment located in the complainant's apartment. It is furthermore stated that beginning on April 30th and ending October 1st the heating system is not in operation, being out of operation during the months of May, June, July, August, and September. Tables are presented in the complaint indicating that during the nonheating season the amount of energy used in the complainant's apartment, which includes the energy used in the operation of the heating plants, is greater than during the heating season.

The complaint is, the defendant on December 12, 1939, demanded that the complainant install separate electric meters for each of the five duplex heating plant motors, a meter to measure the energy furnished for the operation of each of the one-eighth horsepower motors, and demanded that \$1 per month be paid for each meter and 5 cents per kilowatt hour for the energy taken through each of these meters up to 100 kilowatt hours each month

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registered by each meter. He claims the requirement is unreasonable and will require him to pay \$60 per year for a fractional kilowatt demand equivalent to nearly \$64 per year as a minimum for a kilowatt demand, plus the rate of 5 cents per kilowatt hour for all energy consumed. He claims such requirement is in violation of § 5189, Rev. Stats. Mo. 1929, which section, he states, requires that all charges for electric energy be just and reasonable. Complainant further states that the defendant supports such requirement by the rule it has filed in its schedule entitled "Rule 2," reading,

"The consumer agrees not to resell or sublet to others any of the energy contracted for except with the written consent of the company. The consumer shall not be permitted to utilize directly or indirectly said energy at other than the street number or premises upon which the meter registering the consumption is located, except with the written consent of the company."

He states the application of the rule as construed by the defendant and attempted to enforce, is unreasonable and void, that the rule attempts to make an excessive charge, that is not based on the cost of the service or the value of the service received by the complainant, and that the rule on its face permits defendant to make special arrangements by consenting in writing without such written consent being filed with the Commission nor open to public inspection, and furthermore, the rule permits the defendant to apply or ignore said rule as it sees fit and hence is preferential and discriminatory and by its terms does not operate against all alike.

Complainant further claims the requirement of the defendant that a separate meter be installed at each street address and that a separate minimum and primary rate be paid for each motor is discriminatory against complainant, as other customers are not required to use separate meters and to pay primary rates at each street address. Complainant asks that the defendant be required to disclose the precise facts relating to the service furnished to buildings or properties where energy is resold at a street address different than that where metered, and further asks that Rule 2 be declared void and of no effect, but if found valid that it be found that the rule does not apply to the complainant in this case, and that defendant be required to continue the rendition of service as heretofore rendered.

The evidence shows that the defendant is furnishing service to some of its customers, such as the Sheffield Steel Company and the Plaza building, and possibly others, through one meter, but the energy so received is delivered by the customer to different buildings or to different occupants within the customer's building. It is contended by the complainant that he is entitled to receive service similarly through one meter for his use at his premises. The defendant takes the position that it is not violating its schedule for furnishing service in such manner and continues to claim that it is not discriminating against the complainant in its effort to require him to take the service through a meter installed for each building. That is the issue in this case. There is no complaint against the rates provided for in each schedule, but that the defend-

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ant is not applying a schedule under similar conditions to all customers alike.

The motors operated by the complainant, one-eighth horsepower, are so small that it may appear trivial to not allow him to take the service through one meter. The five motors in the five buildings if all operated at the same time would produce five-eighths horsepower motor load, which is small, and the schedule itself provides that the minimum load to be taken into account under the schedule is one kilowatt; the cumulated load of the motors is around one-half kilowatt.

[1] But looking further into the matter that is before the Commission, the principle upon which schedules are built must be taken into account. In order to properly design schedules the customers must be classified. As the number of different uses made of the service by the customers increases it is necessary to increase the number of classifications and make provisions for taking into account those variations in order that the rates applied will be proper and not discriminatory. Generally speaking, the rates are classified as residential, commercial lighting, commercial lighting and power combined, commercial power, industrial power, primary power, and municipal classifications. The rates are then designed to properly compensate the utility for the service furnished the customer under each classification. There should be no unduly preferential charges between customers of a given class, and the customers in one class should not be served at the expense of the customers in other classes. It does not properly answer the complaint to say that the customer

in one classification is paying more or less than a customer in another classification. The first comparison must be made between customers of each classification and then determine if the customers as a whole under one classification are being discriminated against by the rates charged customers as a whole of another classification. Individual cases can be found that if used alone in determining an issue may lead to a false finding.

[2, 3] In the present case the service furnished is used in buildings devoted exclusively to residential purposes. It so happens that the occupants of the various apartments do not own the quarters in which they reside, but are tenants in buildings operated by the owner, and the service in question approaches the commercial classification. The tenants themselves take the service under purely residential conditions and pay for it accordingly; each have their own meter. The complainant takes the service he uses in his apartment. That is purely residential service. Through this same meter he receives his service he also receives electric energy for the operation of the heating plants located in the basements of each building, and that service would, if the classification on the service were finely divided, be purely commercial service. If the classifications were made to the extent that each were classified as commercial service, then the defendant's rate schedules should be further designed to contain provisions for properly classifying and charging the proper rate for that service.

As mentioned above, the amount of energy taken during the nonheating season, 472 kilowatt hours per

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month, is greater than the amount taken during the heating season, 357 kilowatt hours per month. It is evident that the complainant makes greater use of the energy purchased through the one meter in his residence apartment than is used to operate the five small motors. It is shown that he has in his residence an air-conditioning machine and during the month of August, 1939, he used 1,092 kilowatt hours through that meter. The number of kilowatt hours used per month varied from 184 in June, 1939, to 1,092 in August, 1939. Possibly the June bill was rendered for service furnished during the month of May when the heating plant was not in operation and before the air-conditioning plant was in use. That, however, is merely speculation. It is not possible to determine from the evidence how many kilowatt hours are used in the apartment and how many are used for the operation of the heating plants and lighting the basements in which the heating plants are located. It is understood there is a small light in the basements.

It is common knowledge that in some apartment buildings where all the apartments are in one building the service for the operation of the heating plant is taken through one meter. But in the present case five buildings located on adjoining real estate are cumulated under one ownership. Such an arrangement does not justify the violation of common practice on the part of the utility in furnishing the service. If the five buildings were owned by five different parties it would not be permissible at all to allow the energy to be taken cumulatively through one meter. Each, if not tak-

en in connection with the residence service, would have to be served through a commercial classification. So to require the utility to furnish the service as the complainant desires would create a preferential condition that, while very small in the present case, would create a discriminatory condition under which service may be secured.

It should not be overlooked that the complainant is securing service under another condition that is preferential, that being he can charge up the first 100 kilowatt hours taken to either residential service or to the heating plant service and he would then be securing all of his service for his own apartment or the heating plants at 2½ cents per kilowatt hour, which would be a preferential condition when compared to other customers of the same classification. It does not appear the utility is seriously objecting to that particular condition.

In a case before the supreme court of Georgia, Carmichael v. Atlanta Gas-Light Co. (1937) 185 Ga 34, 22 PUR(NS) 170, 193 SE 896, it was held that the Atlanta Gas-Light Company should be permitted to install a gas meter for each apartment building. The complainant in that case asked that the Commission be enjoined from enforcing a rule by which he was required to take gas service for use in two apartment buildings. The plaintiff resided in one of the four apartments in one building owned by him, and owned an adjacent 2-apartment building. He had a contract with the gas company for space and water heating in the building in which he resided and supplied gas to the second building through the same meter

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serving the building in which he resided. The gas company required that he take the service for the two buildings through separate meters. The supreme court affirmed the ruling of the Commission.

Answering the complainant that the defendant is furnishing service to the Sheffield Steel Company and for use in the Plaza building through one meter wherein there are a number of occupants in the building in which the service is used, further definition of what comprises a customer should be made. The Sheffield Steel Company is classified as an industrial customer. This is one industry and because of its magnitude doubtless distributes the energy throughout the buildings. The rate schedule applied to that service takes into account the conditions under which the service is taken and used by the customer. The load is large and the meter installed to measure the service rendered takes into account the size of the load as well as the amount of energy furnished by the defendant. The schedule is so designed to properly compensate the defendant for that service rendered. The service furnished the Plaza building is furnished on a purely commercial classification and the size of the load is such that a demand meter is installed to measure the size of the load or an estimated demand is used in billing for the service. The schedule applied to that service takes those factors into account and it is designed to compensate the defendant for the service so rendered.

The complainant is furnished a mixed class of service, both residential and commercial combined through one meter, and as taken cannot be classi-

fied as either commercial or residential service. There is no classification to fit it. It is a combination of one unit of residential service combined with four or five units of commercial service and the customer unit must not be lost sight of in the various combinations that are possible to take by a customer, particularly in a large city where the variations of the customers' uses are many.

It so happens that the load taken by each motor and possibly one light in the basements of the apartments is so small when combined it will not amount to the minimum of one kilowatt, which is provided as the billing demand for commercial customers. There are doubtless many customers in Kansas City, such as offices that do not require one kilowatt of the system's capacity to serve. But there must be a limit to the minimum size of the load used for billing purposes; otherwise the customer would require the utility to furnish service under the usual form of schedule which would not compensate the utility for the service furnished. In other words, the demand is so small and the minimum kilowatt hours so small that a schedule designed on either the size of the load or the number of kilowatt hours taken basis, or a combination of them, would not compensate the defendant for the expense incurred in extending service to the customer. It so happens that the complainant is receiving four or five units of customer service and is only paying on the basis of one.

After duly considering all the evidence presented herein, the Commission finds that the complaint should be dismissed.

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UNITED STATES DISTRICT COURT, S. D. NEW YORK

Re Community Power & Light Company

(33 F Supp 901.)

Intercompany relations, § 19.8 — Simplification plan — Consideration of objections — Parties withdrawing.

1. The court, in passing upon an application by the Securities and Exchange Commission to enforce and carry out a plan of corporate simplification pursuant to § 11(b) of the Holding Company Act, cannot and will not ignore its responsibility to pass upon objections which have been suggested by counsel who appeared and then withdrew from the proceeding, p. 140.

Intercompany relations, § 5 — Jurisdiction of court — Holding Company Act — Approval of corporate simplification plan.

2. The Federal district court has jurisdiction of a holding company and the subject matter in a proceeding by the Securities and Exchange Commission, pursuant to § 11(e) of the Holding Company Act, to enforce and carry out a plan for corporate simplification of the holding company, after approval by the Commission and the expiration of the time within which an appeal from the Commission approval order might be taken, where by the terms of the plan itself its effectiveness is dependent upon approval by a Federal court as well as the Commission, p. 141.

Intercompany relations, § 5.2 — Powers of Congress — Holding company — Interstate commerce.

3. Section 11 of the Holding Company Act is not invalid on the ground that it is not an exercise of the congressional power over interstate commerce, since that section does not apply to all holding companies but only to registered holding companies under § 5 of the act, and registration is obligatory only for those holding companies which engage in certain specified types of transactions in interstate commerce, p. 149.

Interstate commerce, § 84 — Transactions of holding company — Operations of subsidiaries.

4. A registered holding company is not exempt from regulation by Congress under the commerce clause because it is simply a holding company collecting dividends and interest from its investments, in no reasonable sense engaged in interstate commerce, where certain subsidiaries transmit and own and operate utility assets for the transmission of electric energy in interstate commerce within the meaning of Clause (1) of § 4(a) of the act; that the interstate commerce is conducted through the subsidiary companies rather than by the holding company itself is of no moment, p. 150.

Interstate commerce, § 84 — Holding company regulation — Corporate simplification.

5. The application of subsections (b) (2) and (e) of § 11 of the Holding Company Act are clearly within the power of Congress under the commerce clause in the case of a holding company engaged in interstate commerce through the instrumentality of its subsidiaries, p. 151.

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Interstate commerce, § 1 — Powers of Congress.

6. The power of Congress over interstate commerce is, subject to the limitations of the Bill of Rights, plenary and sovereign and is not limited to such commerce itself but extends to every instrumentality or agency by which it is carried on and to the persons engaged in it, p. 151.

Interstate commerce, § 1 — Powers of Congress — Police power.

7. Congress possesses, within the field of interstate commerce, a police power to promote the general welfare akin to that of the states in the realm of their domestic affairs, and Congress may therefore enact legislation to foster, protect, and control interstate commerce with appropriate regard to the welfare of those who are immediately concerned as well as the public at large and to promote its growth and insure its safety, p. 151.

Interstate commerce, § 1 — Powers of Congress — Public relationship to corporation.

8. Congress has power in the regulation of interstate commerce to provide for the security of the people in their relationships to corporations engaged in such commerce, p. 151.

Intercompany relations, § 5.1 — Holding company regulation — Validity of act — Corporate simplification.

9. The Holding Company Act, in providing a means of corporate simplification for registered holding companies pursuant to § 11, is not arbitrary and capricious, p. 153.

Intercompany relations, § 19.7 — Holding company regulation — Corporate simplification.

10. A plan for corporate simplification of a holding company is within § 11(b) (2) of the Holding Company Act, as against a contention that the corporate structure of the company is not complicated and does not unfairly and inequitably distribute voting rights, where dividends have not been declared because earnings were required to meet debt obligations and to pay for improvements, the company is without credit because of unpaid and undeclared dividends on preferred stock, and assignments and agreements without maturity constitute perpetual debentures, which, unless the plan is consummated or the arrearages on preferred stock are paid, cannot but contribute to the inability of the company to function normally, p. 153.

Intercompany relations, § 19.7 — Holding company regulation — Corporate simplification.

11. Complexity, within the meaning of § 11(b) (2) of the Holding Company Act, is not a matter to be determined merely by counting the classes of securities outstanding, but a corporate structure is unduly and unnecessarily complicated when it prevents the corporation involved from performing its functions, p. 153.

Corporations, § 18 — Voting power distribution — Holding companies.

12. Voting rights of a holding company are unfairly distributed, within the meaning of § 11(b) (2) of the Holding Company Act, when outstanding common stock is valueless on the basis of adjusted book value and on an earning basis have but a 5 per cent interest in the company, while this class of stock presently controls the company through a preponderance of voting strength, p. 153.

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Intercompany relations, § 5.1 — Holding company regulation — Validity of act — Contractual rights — Corporate simplification.

13. Subsections (b) (2) and (e) of § 11 of the Holding Company Act are not unconstitutional in that they would abrogate vested contractual rights given by state law, in their application to a proceedings to enforce and carry out a plan for corporate simplification of a holding company involving a change in voting power of stockholders and a rearrangement of stock, p. 153.

Constitutional law, § 24 — Impairment of contract rights — Powers of Congress.

14. Congress, in the exercise of its powers under the Constitution, may properly enact legislation which has the effect of impairing or even abrogating existing contract rights, p. 153.

Intercompany relations, § 5.1 — Power to regulate holding company — Interference with state rights — Corporate simplification — Changes in rights of stockholders.

15. Sections 11(b) (2) and 11(e) of the Holding Company Act, in their application to a plan of corporate simplification involving changes in rights of shareholders, do not violate the Tenth Amendment of the Federal Constitution, even assuming that the state of incorporation prohibits its corporations from amending their charters so as to substitute some other right for that of preferred shareholders to accrued unpaid and undeclared dividends, p. 154.

Interstate commerce, § 1 — Powers of Congress — State laws.

16. Congress is not fettered in the regulation of the instrumentalities of interstate commerce by state law, p. 154.

Constitutional law, § 15 — Deprivation of property — Direct appropriation.

17. The proscription by the Fifth Amendment of the Federal Constitution of the deprivation of property without due process of law applies only to direct appropriation, p. 156.

Intercompany relations, § 5.1 — Holding company regulation — Corporate simplification — Confiscation.

18. No taking of property, within the meaning of the Fifth Amendment of the Federal Constitution, is involved in a proceeding to enforce and carry out a plan for corporate simplification of a holding company pursuant to §§ 11(b) (2) and 11(e) of the Holding Company Act, under which plan rights of stockholders are changed, p. 156.

Intercompany relations, § 19.7 — Holding company regulation — Corporate simplification — Rights between stockholders.

19. Sections 11(b) (2) and 11(e) of the Holding Company Act authorize a plan of corporate simplification altering the rights of stockholders inter sese, p. 156.

Intercompany relations, § 5 — Powers of court — Holding companies — Corporate simplification.

20. Section 11(e) of the Holding Company Act gives a Federal district court jurisdiction over the corporation and its assets to the extent necessary to enforce and carry out a plan for corporate simplification, and such jurisdiction is manifestly sufficient to work a readjustment of the rights of security holders; jurisdiction over the corporation carries with it jurisdiction over the corporate charter, which is the source and main-spring of shareholders' rights, p. 156.

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Constitutional law, § 7 — Presumption as to constitutionality.

21. The constitutionality of the Holding Company Act is buttressed by a presumption to be overcome only when the unconstitutionality exists beyond a rational doubt, p. 157.

Intercompany relations, § 5.1 — Validity of Holding Company Act — Judicial decisions.

Discussion by Federal court concerning obiter dicta on the constitutionality of the provisions of the Holding Company Act contained in *Burco v. Whitworth* (1936) 14 PUR(NS) 495, 81 F(2d) 721, in the light of the later determination of the Supreme Court in *Electric Bond & Share Co. v. Securities and Exchange Commission* (1938) 303 US 419, 82 L ed 936, 22-PUR(NS) 465, 58 S Ct 678, p. 151.

[June 15, 1940.]

APPPLICATION by the Securities and Exchange Commission at the request of a registered holding company for an order pursuant to § 11(e) of the Holding Company Act to enforce and carry out the terms and provisions of a plan of corporate simplification; application granted. For decision by Securities and Exchange Commission, see 32 PUR(NS) 149.

APPEARANCES: Chester T. Lane, General Counsel, and Lawrence S. Lesser, Frank J. Gillis, and F. Arnold Daum, all of Washington, D. C., for Securities and Exchange Commission; Albridge C. Smith and Prescott R. Andrews, both of New York city, for Community Power and Light Co.

HULBERT, D. J.: This is an application by the Securities and Exchange Commission made at the request of Community Power and Light Company (hereinafter called "the company") for an order pursuant to § 11 (e) of the Public Utility Holding Company Act of 1935, 49 Stat. 822, USCT 15, § 79k(e), 15 USCA § 79k (e).

The company is a Delaware corporation and a holding company as defined by § 2(a) (7) (A) of the act, 15 USCA § 79b(a) (7) (A), and has its principal executive offices in the

borough of Manhattan, city of New York.

The company owns, controls, and holds with power to vote all of the outstanding voting securities of the following public utility companies: Arkansas Utilities Company; the Kansas Utilities Company, Missouri Utilities Company, and Texas New Mexico Utilities Company. The company also owns, controls, and holds with power to vote more than 60 per cent of the outstanding voting securities of General Public Utilities, Inc., a Florida corporation with its principal executive offices in Jersey City, N. J. The latter is not only a public utility company but is also a holding company since it owns, controls, and holds with power to vote all of the voting securities of the following public utility companies: Dakota Power Company, Gothenberg Light and Power Company, Gulf Public Service Company,

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Nebraska Light and Power Company, Southwestern Public Service Company, Arizona Electric Power Company, Flagstaff Electric Light Company, and Holbrook Light and Power Company.

The public utility companies in the company's holding company system operate in the states of Kansas, Missouri, Arkansas, Texas, New Mexico, South Dakota, Nebraska, Louisiana, and Arizona.

On December 1, 1935, the company registered with the Commission under § 5 of the act, 15 USCA § 79e, and thereby became a "registered holding company" as that term is used in § 11 (e) thereof.

On or about January 13, 1938, the company filed with the Securities and Exchange Commission an application under the act for a report on a plan of recapitalization to modify its capital structure, adjust arrearages in preferred stock dividends, and reduce preferred dividend requirements. Hearings were had on said plan before an officer of the Securities and Exchange Commission on February 23 and 24, 1938. Subsequent to said hearings, but prior to any determination by the Securities and Exchange Commission with respect to said plan of recapitalization, the company filed certain amendments thereto and hearings were again held on said plan, as so amended, on March 13, 14, 15, and 16, 1939. Subsequent to said hearings, but prior to any determination by the Securities and Exchange Commission with respect to said plan as so amended, the company filed an application pursuant to § 11(e) of the act asking the Commission to approve a plan of corporate simplification (hereinafter called the "plan") as fair

and equitable and necessary to effectuate the provisions of § 11(b) of the act.

The Commission on August 7, 1939, issued a notice of and order for hearing with regard to such plan, which notice was published in the Federal Register on August 9, 1939, and the company sent by mail, to each of its security holders a copy of a notice, which set forth details of the plan and the date and place of the hearing to be held with regard to such plan.

On September 6, 1939, a hearing on the plan was held pursuant to such notice before a duly appointed officer of the Commission. At such hearing the company appeared and presented evidence in support of the fairness of the plan. No security holder or other person appeared at such hearing in opposition to the plan.

On November 18, 1939, the Commission approved the plan and entered its findings and opinion and order. (32 PUR(NS) 149.) At the same time, the Commission issued its report on the plan as requested by the company. This report was sent to the preferred and common stockholders in connection with the solicitation of assents to the plan. Thereafter, the company gave notice to and solicited proxies of the common and preferred stockholders for a stockholders' meeting which was held in Wilmington, Delaware, on January 12, 1940. At this meeting the plan was approved by more than two-thirds of the preferred stockholders and by more than a majority of the common stockholders. Certain of the minority stockholders, both preferred and common, objected to the plan and voted against its approval.

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On or about March 18, 1940, the Commission, at the request of the company, made an application to this court, pursuant to the provisions of § 11(e) of the act, to enforce and carry out the terms and provisions of the plan.

On March 18, 1940, this court made its order which brought on the hearing of this application on April 25, 1940. Notice of this proceeding, in the manner directed in said order, was given to those security holders of the company whom the plan affects. H. Vincent Smart, representing 112 shares of common stock of the company, appeared on the return day and an adjournment was taken to May 11, 1940, to enable him to file a memorandum regarding the constitutionality of the Public Utility Holding Company Act, and to cross-examine such officers of the company as he might give notice to the company, on or before May 5, 1940, to produce on the adjourned date. Mr. Smart notified the court on May 1, 1940, that his client desired him to withdraw from the proceeding, but he submitted, nevertheless, a memorandum upon the law, together with a communication prepared by a person connected with his client, containing his comments upon the alleged unfairness of the plan and the enforcement thereof.

There was also informally presented to the court, prior to May 1, 1940, a request from the attorney general of the state of Delaware for an adjournment to enable him to determine whether he would seek permission to intervene. Before said adjourned date the court was advised informally that he did not intend to do so. A letter was also presented, at the adjourned

hearing on May 11, 1940, from Howard Duane of Wilmington, Delaware, advising that he had been retained by a holder, since 1930, of 340 shares of first preferred stock, \$6 dividend series of the company, and that an action had been brought by him, subsequent to the institution of this proceeding, in a court of chancery of the state of Delaware in and for Newcastle county upon a bill for an injunction, which apparently is still pending, a motion to restrain and for a temporary injunction pendente lite, however, having heretofore been denied.

[1] While, as has been stated, no one appeared in opposition to this application, the court cannot, and will not, ignore its responsibility to pass upon the objections which have been suggested by counsel who appeared and then withdrew from this proceeding.

Section 11(b) of the act, 15 USCA § 79k(b), so far as pertinent, provides:

"It shall be the duty of the Commission, as soon as practicable after January 1, 1938:

"(2) To require by order, after notice and opportunity for hearing, that each registered holding company, and each subsidiary company thereof, shall take such steps as the Commission shall find necessary to ensure that the corporate structure or continued existence of any company in the holding company system does not unduly or unnecessarily complicate the structure, or unfairly or inequitably distribute voting power among security holders, of such holding company system.

Section 11(e) of the act, 15 USCA

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§ 79k(e), provides in part: "If, after notice and opportunity for hearing, the Commission shall find such plan, as submitted or as modified, necessary to effectuate the provisions of subsection (b) and fair and equitable to the persons affected by such plan, the Commission shall make an order approving such plan; and the Commission, at the request of the company, may apply to a court, in accordance with the provisions of subsection (f) of § 18 [79r of this chapter], to enforce and carry out the terms and provisions of such plan."

[2] Section 24 of the act, 15 USCA § 79x, provides that any person or party aggrieved by an order issued by the Commission may obtain a review upon petition to the court of appeals of the United States within any circuit wherein such person resides or has his principal place of business, or in the United States court of appeals for the District of Columbia. Such appeal must be taken within sixty days after the entry of such order. No such appeal has been taken and the time so to do has long since expired.

Subsection (f) of § 18, 15 USCA § 79r (f), reads as follows: "Whenever it shall appear to the Commission that any person is engaged or about to engage in any acts or practices which constitute or will constitute a violation of the provisions of this title [chapter], or of any rule, regulation, or order thereunder, it may in its discretion bring an action in the proper district court of the United States, the district court of the United States for the District of Columbia, or the United States courts of any territory or other place subject to the jurisdiction of the United States, to enjoin

such acts or practices and to enforce compliance with this title [chapter] or any rule, regulation, or order thereunder, and upon a proper showing a permanent or temporary injunction or decree or restraining order shall be granted without bond. The Commission may transmit such evidence as may be available concerning such acts or practices to the attorney general, who, in his discretion, may institute the appropriate criminal proceedings under this title [chapter]."

The authority of the court under this section to approve the plan in accordance with subsection (f) is challenged but it would certainly defeat the intent of the Congress and the purpose of the act if the court lacks such power in view of the express language of § 11(e), 15 USCA § 79k (e) which reads: "If, upon any such application, the court, after notice and opportunity for hearing, shall approve such plan as fair and equitable and as appropriate to effectuate the provisions of § 11 [this section], the court as a court of equity may, to such extent as it deems necessary for the purpose of carrying out the terms and provisions of such plan, take exclusive jurisdiction and possession of the company or companies and the assets thereof, wherever located; and the court shall have jurisdiction to appoint a trustee, and the court may constitute and appoint the Commission as sole trustee, to hold or administer, under the direction of the court and in accordance with the plan theretofore approved by the court and the Commission, the assets so possessed."

The officers of the company, because of the pending suit in the chancery court of Delaware, might refrain

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from carrying out the plan without such a protective order as here applied for and of course the purpose of the plan approved by the Commission would thereby be defeated and the assets of the company possibly depreciated, if not, wasted.

But § 25 of the act, 15 USCA § 79y, providing for jurisdiction of offenses and suits, provides in part: "Any suit or action to enforce any liability or duty created by, or to enjoin any violation of, this title [chapter] or rules, regulations, or orders thereunder, may be brought in any such district or in the district wherein the defendant is an inhabitant or transacts business. . . . Judgments and decrees so rendered shall be subject to review as provided in §§ 128 and 240 of the Judicial Code, as amended [USCA Title 28, §§ 225 and 347]."

By the term of the plan itself its effectiveness is dependent upon approval by a Federal court as well as the Commission.

Consequently I hold that this court has jurisdiction of the company and the subject matter.

I am further persuaded to this determination by an examination of the Report of the Senate Committee on Interstate Commerce, No. 621, 74th Congress, First Session.

The Plan

The plan contemplates the exchange of all of the preferred and common stock of the company now outstanding for new common stock. Each share of present Preferred Stock, together with all accumulated unpaid dividends, will receive five shares of New Common stock. Each share of present common stock will receive

one and four-fifths shares of new common stock. The new shares of common stock are to have a par value of \$10 each and will be entitled to one vote per share.

Upon carrying out the proposed plan, the resulting distribution of new common stock will be as follows:

	Shares	Per Cent
To present preferred stockholders (5 new shares for each of 68,962 present shares) . . .	344,810	95.04
To present common stockholders (1½ new shares for each of 10,000 present shares) . . .	18,000	4.96
	362,810	100.00

The plan also provides that the "Assignments and Agreements" now outstanding in the face amount of \$370,523.84, may be redeemed by the company at any time upon thirty days' notice and upon payment at the rate of \$100 for each \$95 face amount outstanding.

In connection with the consummation of the plan, the company proposes to make various accounting entries which will have the effect of adjusting or eliminating certain accounts in the company's balance sheet. These accounting entries are in accordance with the Securities and Exchange Commission's Uniform System of Accounts for Public Utility Holding Companies; certain of the entries are required by the Uniform System, and the others are within the company's discretion.

The plan, by its terms, is to become effective if it secures not only the approval of the Securities and Exchange Commission, but also that of the holders of two-thirds of the preferred and a majority of the common stock, and of a Federal court upon application by

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the Securities and Exchange Commission pursuant to § 11(e) of the act.

The contemplated procedure is as follows: If the approval of the Securities and Exchange Commission is secured, the plan will be submitted for the consideration of the stockholders. If approval is given by the specified majorities, the Commission is requested to apply to a Federal court to enforce and carry out the terms and provisions of the plan. If the plan is then approved by the court, it is to be consummated either (a) by amending the charter of the existing corporation, or (b) by organization of a new corporation which will take over all of the assets and assume all of the liabilities and obligations of the existing corporation.

In the event that the existing corporation is to be used in the consummation of the proposed plan, the present certificate of incorporation will be so amended as to eliminate all provisions relating to the presently authorized and outstanding first preferred and common stock and so as to authorize the issuance of 500,000 shares of new common stock, each share having one vote and having a par value of \$10.

In the event that the proposed plan is consummated by the formation of a new corporation, such new corporation will be organized under the laws of Delaware or such other state as may be determined by the board of directors. It will have powers and purposes substantially similar to those possessed by the present corporation. The new corporation will have an authorized capital consisting of 500,000 shares of common stock, each share having one vote and having a par value

of \$10. Following the formation of such new corporation, all of the property now owned by Community Power and Light Company will be sold, transferred and assigned to the new corporation, which will at the same time assume all of the liabilities and obligations of the present company in return for such an amount of common stock of the new company as will be necessary to consummate the proposed plan. This common stock will then be distributed in accordance with the provisions of the plan.

Questions Presented by the Plan

In order to approve the plan the act requires the Commission to find that the plan is necessary to effectuate the provisions of subsection (b) of § 11, which in turn requires it to find that the present corporate structure of the company is such that the Commission must take steps to insure that the company's corporate structure will not unduly or unnecessarily complicate the structure of the holding company system and to insure that the voting power is not unfairly or inequitably distributed among security holders, and that the plan is fair and equitable to the persons affected by it.

All of the proceedings before the Commission were introduced upon the hearing before, and received in evidence by me.

In the findings and opinion of the Commission it found:

1. That the corporate structure of the company was unduly and unnecessarily complicated and that the complications in the corporate structure of the company rendered the corporate structure of the holding company system, of which the company is a

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part, unduly and unnecessarily complicated, contrary to the standards of § 11(b) of the act;

2. That the voting power was unfairly and inequitably distributed;

3. That the plan was necessary to effectuate the provisions of subsection (b) (2) of § 11 of the act;

4. That the modification in the terms of the assignments and agreements was necessary to eliminate complications in the company's corporate structure;

5. That the plan was fair and equitable to both classes of stockholders;

6. That the modification in the terms of the assignments and agreements was fair to the holders thereof, and

7. That there was nothing in the proposed accounting transactions tending to make the plan unfair or not in compliance with the act.

Present Financial Condition of the Company

Since 1931, the company and its subsidiaries, including General Public Utilities, Inc., have been short of working capital. Such cash as the system had was used to pay principal and interest on certain bank loans, interest on the assignments and agreements, and for construction purposes and hence could not be used for dividends on the preferred stock. As the dividends on the preferred stock accumulated it became more difficult for the company or its subsidiaries to sell securities to obtain the much needed additional capital.

From 1927 to 1931, the company paid regular dividends on its preferred and common stocks.

In every year from 1927 to 1930,

the dividends paid exceeded the amounts earned.

In the period from 1932 to 1938, inclusive, the total net cash in the system, not including General Public Utilities, Inc., amounted to approximately \$5,054,608, and in the same period the following disbursements were made: (1) Payments of principal on bank debt, \$1,775,000; (2) interest on bank debt, \$337,782; (3) interest on assignments and agreements, \$294,704; (4) construction, \$2,928,341; or a total of \$5,335,627, leaving a cash deficit for the period of \$281,219.

The bank loan, which cost the company more than \$2,100,000 from 1931 to 1938 in principal and interest, was originally incurred by the company at the instance of its then parent company, American Community Power Company (hereinafter called "American").

On September 8, 1931, the American, which then controlled the company, caused it to issue a 6 per cent demand note in the amount of \$1,500,000 in consideration of the payment of \$500,000 in cash by American to the company and the assignment to the company of a note in the face amount of \$1,000,000, payable to American by General Public Utilities, Inc.'s predecessor.

As of the same date, American borrowed \$1,500,000 from The Chase National Bank of The City of New York (hereinafter called "Chase") and executed and delivered a 6 per cent collateral note for six months in that amount. As security, American turned over to Chase, the company's note to it for \$1,500,000 and, as additional collateral, American Commonwealths Power Corporation (Del.)

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the parent of American (hereinafter called "Commonwealths"), deposited 50,000 shares of the common stock of American, which was all of that company's outstanding stock.

As a part of the transaction, it was agreed by American that its note to Chase would mature upon (1) the nonpayment of an \$1,800,000 issue of notes of American, which were due November 1, 1931, or (2) upon the nonpayment of the \$4,000,000 issue of secured notes of General Public Utilities, Inc.'s predecessor, due December 1, 1931.

Neither of these obligations was paid at maturity.

To obtain a waiver from Chase of default on American's note it caused the company to pledge additional collateral as security for its note. The additional collateral so pledged was all of the common stock of the predecessor of Texas-New Mexico Utilities Company and \$1,800,000 of notes of General Public Utilities, Inc.'s predecessor.

Receivers were appointed for American by the chancery court of Delaware on Dec. 31, 1931, and on Feb. 15, 1932, the company executed a collateral agreement with Chase under the terms of which the note of the company was extended to May 1, 1932, and the company recognized Chase as the holder of its note in due course and agreed to pay interest and principal of such note when due.

The note to Chase was finally liquidated, after periodic extensions, on March 27, 1936, as a result of funds borrowed from the Empire Trust Company and from the Continental Bank & Trust Company, both of New York city. The principal of the notes

to these two banks was reduced until as of June 30, 1939, only \$150,000 was due to the Continental Bank & Trust Company. This has now been paid from the proceeds of a loan secured from the Reconstruction Finance Corporation.

Because of the conduct of its former parent companies, the company was also required to issue certain "Assignments and Agreements" although it received no cash return therefrom.

During 1931, Commonwealths caused employees and officers of the operating subsidiaries of the company to sell shares of its \$6.24 preferred stock and shares of the prior preferred stock of American Commonwealths Power Corporation, New Jersey, in the territory served by such operating subsidiaries. None of the proceeds of these sales went to the company or to any of its subsidiaries.

In order to avoid litigation and retain the good will of the customers of their subsidiaries, the company offered to take up the preferred stock that had been so sold at the instance of Commonwealths (Del.). This transaction was evidenced by an assignment to the company of any claim which such preferred stockholders of Commonwealths (NJ) may have had in the premises. In turn, the company agreed to pay to the holder of such preferred stock \$6.24 per annum for each \$100 face amount of prior preferred stock (which had been sold for \$95). These obligations have no due date, but are exchangeable at the option of the company for its junior preferred stock, provided there are no arrears of dividends on the first preferred stock. The company has never, because of said dividend arrears,

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been in a position to exercise its right to issue preferred stock in settlement of these agreements.

During the period from 1931 to 1938, the interest on the assignments and agreements amounted to \$294,704. This amount was paid by the company with no cash return to it and to that extent utilized cash which would otherwise have been available for dividends on the first preferred stock.

It appears that the cash entering the system through normal business operations was not sufficient to meet the cash requirements of the system, including construction. During the same period it has been impossible for the subsidiary companies to take care of their own construction for additions and extensions through the sale of new securities.

The trust indenture, under which the \$14,000,000 principal amount of the company's first mortgage collateral trust gold bonds are issued, provides that all securities of the direct operating subsidiaries owned by the company are to be pledged with the trustees. The company covenanted that it would not permit the subsidiaries to issue any additional securities unless such securities were also pledged with the trustees. This provision prevented sale of securities to anyone except the company and that company was not in a cash position to put any additional money in the operating properties.

General Public Utilities, Inc., has a similar provision in the trust indenture securing its first mortgage and collateral trust $6\frac{1}{2}$ per cent bonds. Its subsidiaries are thus unable to sell securities to finance their own extensions and additions. General Public

Utilities, Inc., is not in a cash position to put additional funds into its subsidiaries, and, as has been stated, the company cannot advance money to General Public Utilities, Inc., so that company may aid its subsidiaries.

Temporary respite from this situation was secured by the company in May, 1939, through the medium of a Reconstruction Finance Corporation loan of \$1,350,000. Of this amount, \$1,250,000 is to be used by the Missouri Utilities Company, the Kansas Utilities Company, and the Texas-New Mexico Utilities Company for construction of additions and extensions in the territory served by such companies. The remaining \$100,000 to be used by the company, together with funds of its own, to pay off the bank loans previously mentioned.

Under the terms of the loan agreement the company is presently restricted while the loan is outstanding to a maximum annual dividend of 50 cents per share on the new common stock, or a total annual dividend payment of not over \$181,405.

Fairness of the Plan

The Commission found that (32 PUR(NS) 149, 157):

"The most obvious question of fairness is the allocation of securities between the present preferred and common stockholders. Unless their present interests in the Company correspond to the proposed 95 to 5 distribution, the plan may be said to be unfair in the absence of offsetting considerations. On the other hand, it is to be recognized that such relationships cannot be measured with precision.

"The usual methods for determining the fairness of a reallocation of se-

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curities require consideration of the values presently available for each class. On the basis of book values, as determined by the latest balance sheet, there would appear to be an excess of value available for the common stock, which might be used as a basis for some recognition. However, as pointed out above, values on the balance sheet include items which ought not to be there and which it is now proposed to eliminate. When these eliminations are made, the margin apparently available for the common stock disappears.

"This, however, is not conclusive as to the right of the common stock to participation. At the present time the corporate earnings exceed the preferred dividend requirement and the forecasts of future earnings point to a still further improvement. It may be assumed, therefore, that although it will take many years before the present common stock can hope for a return, especially in view of the crippling effect of the present capital structure, nevertheless there is an eventual prospect which must be regarded as having a present value. If the company were in a position to pay out all of its corporate net income in the form of dividends, the common stockholders might, on the basis of the present level of earnings, expect some return after approximately ten years. However, according to the company's management the system must conserve its cash for improvements, replacements, and betterments, and as pointed out above, the loan agreement with the Reconstruction Finance Corporation limits dividend payments so long as that loan is outstanding unless that corporation's consent is obtained to

any proposed increase in dividend payments. Nevertheless, the possibility that there may eventually be dividends available for the common stock is such that we cannot say that the common stock has no value, and we therefore believe that it is entitled to some participation in the company.

"We have frequently said that for reorganization purposes earning power rather than the book value of assets is the best test of value. Re Genesee Valley Gas Co. (1938) 3 SEC 104; Re Utilities Power & Light Corp. (1939) 29 F Supp 763, 5 SEC 483. In the present case it is unnecessary to attempt to appraise the exact value of the common stock of community. It is evident from the income figures, as previously set forth above, that there is some excess of earnings over present preferred dividend requirements. We therefore believe that some value remains for the common stock. Under circumstances where a larger participation was being given to common stock, we might be required to evaluate more precisely the equity for such common stock. On the other hand, the fact that there appears to be no prospect of dividends being paid on the common stock for many years indicates that any participation being given to that class of stock must necessarily be slight. Under all the circumstances of the present case and upon consideration of the entire record, we are of the opinion that the proposed allocation is reasonable.

"It may be argued that whatever value exists for the common stock is presently subordinated to the claims of the preferred stockholders, whereas the plan proposes to place both on a parity so far as the future is con-

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cerned. In the present case such a contention seems unreal. Any attempt to give the preferred stockholders for their overwhelming interest securities senior in rank to those issued to the holders of common stock would produce a useless complexity without substantially affecting the result. The interest of the present common stockholders is so small as in no event to warrant the issuance of more than one class of securities.

"It follows from the foregoing that the vesting of the preferred stockholders with 95 per cent of the voting power is consistent with the respective interests of the two classes of stock and we find the plan fair and equitable to both classes of stockholders.

"As we have pointed out, the modification in the terms of the assignments and agreements is in substance merely incidental to the simplification of the company's corporate structure. Since no real change is made in the rights of the holders of assignments and agreements, and since they will continue to receive interest at the same rate unless and until the company is able to redeem their securities at the full price, we find that the proposed alteration in the terms of these documents is fair to the holders thereof."

Necessity for Plan

The Commission found (32 PUR (NS) at p. 156):

"... With huge preferred stock arrearages which, because of the terms of the Reconstruction Finance Corporation's loan heretofore mentioned, will increase for the present rather than diminish, and in view of the fact that the assignments and agreements now outstanding can-

not be called unless converted into junior preferred stock, which cannot be issued so long as preferred dividends are in arrears, we are of the opinion that the company's corporate structure is unduly and unnecessarily complicated. Under these circumstances, we are of the opinion that the complications in community's corporate structure render the corporate structure of the holding company system of which community is a part unduly and unnecessarily complicated, contrary to the standards of § 11 (b).

"We reach the same conclusion with respect to the distribution of voting power. As already stated, under the terms of the charter the holders of common stock are in a position to control the company at all times and, in the absence of defaults, have the sole voting power for the election of directors. The fact is that the interest of the common stock in the company's assets and earnings is at best slight. In substance the company belongs to the preferred stockholders, assuming that its creditors are secure in their claims. We therefore conclude, and so find, that the voting power is presently unfairly and inequitably distributed.

"The proposed modification in the terms of the assignments and agreements is merely an incident to the transformation of the company's corporate structure from three authorized classes to one class of stock. Under the present terms of the assignments and agreements, they may be converted into a junior preferred stock 'if and when defaults in preferred dividends have been remedied and regular preferred dividends have been resumed.' Since the consummation of the simpli-

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sification plan will terminate all rights to accrued dividends, it is evident that the company, upon the exchange of stock required by the plan, would, so far as the terms of the assignments and agreements are concerned, be in a position to convert the assignments and agreements into preferred stock and then immediately to call such preferred stock at its call price of \$100 per unit. The effect of the proposed modification, therefore, appears merely to make unnecessary the actual issuance and calling of the junior preferred stock. In that way the additional complication in the corporate structure resulting from such issuance is avoided. No real change is made in the rights of the holders of assignments and agreements. So far as any alteration is made requiring our approval, therefore, we find that such modification in the terms of the assignments and agreements is necessary to eliminate complications in the company's corporate structure and to carry out the original purposes of the assignments and agreements in the light of the elimination of the company's preferred stock and its transformation into a one stock company.

"Under all of the circumstances of this case, in the light of the company's present financial condition and future prospects, and in view of the present inequitable distribution of voting power, we conclude and so find that the plan of corporate simplification is necessary to effectuate the provisions of subsection (b) (2) of § 11."

[3] It has been suggested to the court, as previously stated, that § 11 of the act is not an exercise of the congressional power over interstate commerce in that "the test of application

. . . is not whether the holding company is engaged in or affects interstate commerce but rests solely on the test of whether it is a holding company."

This suggestion is without merit. Section 11 does not apply to all holding companies. It is expressly limited in its application to "registered" holding companies under § 5 of the act. Nor is registration required indiscriminately of all holding companies as such. On the contrary, registration is obligatory only for those holding companies which engage in certain specified types of transactions.

Section 4(a) of the act 15 USCA § 79d (a), reads:

"After December 1, 1935, unless a holding company is registered under § 5 [79e of this title], it shall be unlawful for such holding company, directly or indirectly—

"(1) to sell, transport, transmit, or distribute, or own or operate any utility assets for the transportation, transmission, or distribution of, natural or manufactured gas or electric energy in interstate commerce;

"(2) by use of the mails or any means or instrumentality of interstate commerce, to negotiate, enter into, or take any step in the performance of, any service, sales, or construction contract undertaking to perform services or construction work for, or sell goods to, any public utility company or holding company;

"(3) to distribute or make any public offering for sale or exchange of any security of such holding company, any subsidiary company or affiliate of such holding company, any public utility company, or any holding company, by use of the mails or

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any means or instrumentalities of interstate commerce, or to sell any such security having reason to believe that such security, by use of the mails or any means or instrumentality of interstate commerce, will be distributed or made the subject of a public offering;

"(4) by use of the mails or any means or instrumentality of interstate commerce, to acquire or negotiate for the acquisition of any security or utility assets of any subsidiary company or affiliate of such holding company, any public utility company, or any holding company;

"(5) to engage in any business in interstate commerce; or

"(6) to own, control, or hold with power to vote, any security of any subsidiary company thereof that does any of the acts enumerated in paragraphs (1) to (5), inclusive, of this subsection."

In *Electric Bond & Share Co. v. Securities and Exchange Commission* (1938) 303 US 419, 82 L ed 936, 22 PUR(NS) 465, 58 S Ct 678, 115 ALR 105, the court sustained §§ 4 (a) and 5 of the act as constitutional and held that the doing of any of the things specified in clauses (1) to (6) of § 4(a) above quoted constituted an engagement in interstate commerce subject to the regulation of Congress. Therefore, the only holding companies required to register are those which engage in interstate commerce. Since § 11 by its terms applies only to registered holding companies, it is evident that "the test of application" does not "rest solely on . . . whether the company is a holding company" without regard to whether it is "engaged in or affects interstate commerce."

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[4] The further suggestion has been made to the court that, despite its registration under § 5 of the act, the company is not subject to regulation by Congress under the commerce clause because it "is simply a holding company collecting dividends and interest from its investments, in no reasonable sense, engaged in interstate commerce." But in view of the regulatory provisions of the act which take effect only after registration it would seem unlikely that the officers and directors of the company would have caused it to register under § 5 of the act unless the company engaged in interstate commerce as defined in clauses (1) to (6) of § 4(a).

However that may be, the record is clear that at least three subsidiaries of the company transmit, and own and operate utility assets for the transmission of electric energy in interstate commerce, within the meaning of clause (1) of § 4(a) of the act. These are Texas-New Mexico Utilities Company, Kansas Utilities Company and Missouri Utilities Company, all of whose outstanding voting securities are owned, or controlled and held by the company with power to vote. That the interstate commerce is conducted through the subsidiary companies rather than by the company itself is of no moment. In *Electric Bond & Share Co. v. Securities and Exchange Commission*, *supra*, at p. 475 of 22 PUR(NS), Mr. Chief Justice Hughes said: "That they conduct such transactions through the instrumentality of subsidiaries cannot avail to remove them from the reach of the Federal power. It is the substance of what they do, and not the form in which they clothe their trans-

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actions, which must afford the test. The constitutional authority confided to Congress could not be maintained if it were deemed to depend upon . . . mere modal arrangements"

I deem the second suggestion to be without merit.

[5] The suggestion was further made that § 11 of the act is not within "the power of Congress to pass uniform laws on bankruptcy . . . (or) . . . to establish post offices and post roads."

Reliance is placed by both suggestors on *Burco v. Whitworth* (1936) 81 F(2d) 721, 14 PUR(NS) 495. That case arose upon an application for instructions by a trustee appointed under § 77B of the Bankruptcy Act, 11 USCA § 207. The debtor was a holding company as defined by the act and the question was whether the trustee should comply with the registration provisions of §§ 4(a) and 5. The court held that those sections were unconstitutional and directed the trustee to disregard them. That decision has been clearly overruled by the later determination of the Supreme Court in the *Electric Bond & Share Co. Case*, *supra*, that §§ 4(a) and 5 are constitutional. The court in the *Burco Case*, *supra*, however, unlike the Supreme Court in the *Electric Bond & Share Co. Case*, gave expression to opinions concerning sections of the act other than those in issue. This, of course, is sheer obiter. In view of the fact that the *Burco Case* has been overruled as to the matter decided, little weight can be given to its dicta.

The company is engaged in interstate commerce through the instrumentality of its subsidiaries and the application of subsection (b) (2) and (e)

of § 11 are clearly within the power of Congress under the commerce clause.

[6-8] The power of Congress over interstate commerce is, subject to the limitations of the Bill of Rights, plenary and sovereign (*Kentucky Whip & Collar Co. v. Illinois C. R. Co.* (1937) 299 US 334, 345, 81 L ed 270, 57 S Ct 277; *Champion v. Ames* (1903) 188 US 321, 347, 47 L ed 492, 23 S Ct 321; *Gilman v. Philadelphia* (1866) 3 Wall. 713, 725, 18 L ed 96; *Gibbons v. Ogden* (1824) 9 Wheat 1, 196, 6 L ed 23; *Cohens v. Virginia* (1821) 6 Wheat 264, 412, 5 L ed 257) and is not limited to such commerce itself but extends "to every instrumentality or agency by which it is carried on" (*Minnesota Rate Cases* (1913) 230 US 352, 399, 57 L ed 1511, 33 S Ct 729, 739, 48 LRA(NS) 1151, Ann Cas 1916A, 18) and to the "persons engaged in it." *Sherlock v. Alling* (1876) 93 US 99, 103, 23 L ed. 819.

Within the field of interstate commerce Congress possesses a police power to promote the general welfare akin to that of the states in the realm of their domestic affairs. *Nebbia v. New York* (1934) 291 US 502, 524, 78 L ed. 940, 2 PUR(NS) 337, 54 S Ct 505, 89 ALR 1469; *Brooks v. United States* (1925) 267 US 432, 436, 69 L ed 699, 45 S Ct 345, 37 ALR 1407; *Board of Trade of Chicago v. Olsen* (1923) 262 US 1, 41, 67 L ed 839, 43 S Ct 470.

Congress may, therefore, under the commerce clause, enact legislation "to foster, protect, and control the [interstate] commerce with appropriate regard to the welfare of those who are immediately concerned, as well as the

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public at large, and to promote its growth and insure its safety." *Dayton-Goose Creek R. Co. v. United States* (1924) 263 US 456, 478, 68 L ed 388, 44 S Ct 169, 172, 33 ALR 472. It is within the province of Congress, moreover, in the regulation of interstate commerce to provide for the security of the people in their relationships to corporations engaged in such commerce. Thus in *Crutcher v. Kentucky* (1891) 141 US 47, 58, 35 L ed 649, 11 S Ct 851, 854, the court said: "The prerogative, the responsibility, and the duty of providing for the security of the citizens and the people of the United States in relation to foreign corporate bodies or foreign individuals with whom they may have relations of foreign commerce, belong to the government of the United States. . . . And the same thing is exactly as true with regard to interstate commerce as it is with regard to foreign commerce. No difference is perceivable between the two. . . ."

The powers of Congress in this regard were succinctly stated by the late Frank B. Kellogg some thirty years ago: ". . . Within its power of regulation it may prescribe what corporations may so engage in such commerce. It may prohibit corporations organized under foreign governments from engaging therein, or prescribe the regulations under which they may so engage. It may equally prohibit state corporations from so engaging, or as a condition prescribe the regulations under which they may engage. Such conditions may include the terms under which the capital stock shall be issued and paid for, and proper guaranties to insure the solvency of such corporations to the end

that their securities may be safe investments for the people, and that they may be able to perform their obligations as instrumentalities of commerce." *Federal Incorporation and Control* (1910) 20 Yale LJ 177, 188.

Similarly Victor Morawetz, an eminent authority on constitutional and corporate law, wrote over a quarter of a century ago: ". . . The organization, powers, and financial condition of a . . . corporation may have a direct and important relation to the transaction of interstate and international commerce, and may be of such a character as to render the . . . operations of the corporation a menace to the security and welfare of the people of all the states. A statute prohibiting the transaction of interstate commerce by means of a corporate organization which is a menace to the security of the public would seem justifiable as an exercise of the police power over interstate commerce and as a regulation of such commerce within the meaning of the Constitution." *The Power of Congress to Enact Incorporation Laws and to Regulate Corporations* (1913) 26 Harvard L Rev 667, 680.

Subsections (b) (2) and (e) of § 11 of the act are clearly within the power of Congress above described. A corporation engaged in interstate commerce whose corporate structure is unduly or unnecessarily complicated or unfairly and inequitably distributes voting power among its security holders is manifestly inimical both to that commerce and its own security holders. That is especially so of public utility holding companies one of whose main functions is to finance the operations of their subsidiaries through

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funds raised by the sale of their own securities.

[9] The suggestion that, in providing a means of corporate simplification for registered holding companies, the act is arbitrary and capricious is demonstrably unwarranted.

[10-12] The suggestion that the plan is not within § 11 (b) (2) in that the corporate structure of the company is not complicated and does not unfairly and inequitably distribute voting rights is equally untenable. It appears clearly from the opinion of the Commission approving the plan that, although there have been earnings, dividends have not been declared since November, 1931, because the funds were found necessary to meet debt obligations and to pay for necessary improvements to the properties of the operating subsidiaries. With huge arrearages of unpaid and undeclared dividends on the preferred stock, the company finds itself without credit to raise the funds necessary to enable it to fulfill its duties to its subsidiaries. The "assignments and agreements" being without maturity, constitute perpetual debentures, which, unless the plan is consummated or the arrearages on the preferred stock are somehow paid, cannot but contribute to the inability of the company to function normally.

Complexity is not a matter to be determined merely by counting the classes of securities outstanding. A corporate structure is unduly and unnecessarily complicated when it prevents the corporation involved from performing its functions. By such a test there can be no doubt that the company's corporate structure falls within the meaning of § 11 (b) (2) of the act.

That the voting rights are unfairly distributed is apparent. The Commission found the 10,000 shares of outstanding common stock to be valueless on the basis of adjusted book value, and on an earning basis to have but a 5 per cent interest in the company. Yet this class of stock presently controls the company through a preponderance of voting strength.

[13, 14] It has been further suggested that in their application in the instant case subsections (b) (2) and (e) of § 11 are unconstitutional in that they would abrogate "vested contractual rights given . . . by state law." I do not agree. In the exercise of its powers under the Constitution, Congress may properly enact legislation which has the effect of impairing or even abrogating existing contract rights. This has been recognized on numerous occasions by the Supreme Court in sustaining statutes enacted under the power to coin money and regulate its value. *Legal Tender Cases* (1871) 12 Wall. 457, 549, 20 L ed 287; *Norman v. Baltimore & O. R. Co.* (Gold Clause Case) (1935) 294 US 240, 79 L ed 885, 55 S Ct 407, 95 ALR 1352, as well as under the commerce clause, *United States v. Southern P. Co.* (1922) 259 US 214, 234, 66 L ed 907, 42 S Ct 496; *New York v. United States*, 257 US 591, 600, 66 L ed 385, PUR1922C 455, 42 S Ct 239; *Philadelphia, B. & W. R. Co. v. Schubert* (1912) 224 US 603, 613, 56 L ed 911, 32 S Ct 589; *Louisville & N. R. Co. v. Mottley* (1911) 219 US 467, 480-482, 55 L ed 297, 31 S Ct 265, 34 LRA(NS) 671; *Addyston Pipe & Steel Co. v. United States* (1899) 175 US 211, 226-235, 44 L ed 136, 20 S Ct 96. Thus in the *Schu-*

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bert Case, *supra*, Mr. Justice Hughes, as he then was, said (224 US at p. 613): "The power of Congress, in its regulation of interstate commerce . . . [is] not fettered by the necessity of maintaining existing arrangements and stipulations which . . . conflict with the execution of its policy. To subordinate the exercise of the Federal authority to the continuing operation of previous contracts would be to place, to this extent, the regulation of interstate commerce in the hands of private individuals, and to withdraw from the control of Congress so much of the field as they might choose by prophetic discernment to bring within the range of their agreements. The Constitution recognizes no such limitation. It is of the essence of the delegated power of regulation that, within its sphere, Congress should be able to establish uniform rules, immediately obligatory, which as to future action should transcend all inconsistent provisions. Prior arrangements were necessarily subject to this paramount authority."

[15, 16] Nor is the suggestion that §§ 11(b) (2) and 11(e) of the act in their present application violate the Tenth Amendment of any merit. Assuming that Delaware law prohibits its corporations from amending their charters so as to substitute some other right for that of preferred shareholders to accrued unpaid and undeclared dividends: Congress is not fettered in the regulation of the instrumentalities of interstate commerce by state law. *United States ex rel. Attorney General v. Delaware & H. Co.* (1909) 213 US 366, 405, 53 L ed 836, 29 S Ct 527; *Northern Securities Co. v. United States* (1904) 193 US

197, 345, 48 L ed 679, 24 S Ct 436; *Pittsburgh & W. V. R. Co. v. Interstate Commerce Commission* (1923) 54 App DC 34, 293 Fed 1001, 1003, appeal denied (1924) 266 US 640, 69 L ed 483, 45 S Ct 124. Thus in the *Delaware & Hudson Case, supra*, the court said (213 US at p. 405): "... the power to regulate commerce possessed by Congress is, in the nature of things, ever enduring, and therefore the right to exert it today, tomorrow, and at all times in its plenitude must remain free from restrictions and limitations arising or asserted to arise by state laws, whether enacted before or after Congress has chosen to exert and apply its lawful power to regulate."

In the *Pittsburgh & W. V. R. Co. Case, supra*, the court sustained § 20 (a) of the Interstate Commerce Act, 49 USCA § 20(a), which placed the issuance of securities by transportation companies engaged in interstate commerce under the regulation of the Interstate Commerce Commission. In overruling a contention similar to that here raised, the court said (54 App DC at p. 36, 293 Fed at p. 1003): "The validity of § 20a, *supra*, is questioned on the ground that it is not a regulation of Interstate Commerce, nor within the power of Congress, but is instead a usurpation of states' rights contrary to the Tenth Amendment of the Constitution of the United States. It is authoritatively asserted that with one or two exceptions all the railroad corporations of the country are organized under state laws, and it is contended are subject exclusively to the Constitution and laws of the states in which they were created. We are not impressed by this contention. Unques-

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tionably every state has plenary power over its corporations, but when that power comes in conflict with the exercise by Congress of a power expressly conferred by the Constitution, the authority of the state must yield. We are here considering the power of Congress to regulate interstate commerce; in that field the authority of Congress is supreme. A law of Congress enacted pursuant to express constitutional sanction, is the supreme law of the land, 'anything in the Constitution or laws of any state to the contrary notwithstanding.' "

The court said in *Champion v. Ames* (1903) 188 US 321, 357, 47 L ed 492, 23 S Ct 321, 327: "If it be said that the act . . . is inconsistent with the Tenth Amendment, reserving to the states respectively or to the people the powers not delegated to the United States, the answer is that the power to regulate commerce among the states has been expressly delegated to Congress."

But the Delaware law is not as has been suggested. All that *Keller v. Wilson & Co.* (1936) — Del —, 190 Atl. 115, and the cases that follow it (relied upon by Mr. Duane) hold is that accumulated unpaid and undeclared dividends are not subject to elimination by action of the stockholders under § 26 of Delaware's General Corporation Law. This is apparent from the later decision of the same court in *Federal United Corp. v. Havender* (1940) — Del —, 11 A(2d) 331, holding that such dividends can properly be eliminated by corporate action under §§ 59 and 59A of the General Corporation Law.

The *Keller* Case, *supra*, turns upon the point that § 26 of the General Cor-

poration Law was not in effect when the corporation in question was organized and that consequently rights of preferred shareholders contracted before its enactment were not subject to impairment by it. *Consolidated Film Industries v. Johnson* (1937) — Del —, 197 Atl 489, goes a step further. It was there held that even as to corporations organized after its enactment, § 26, while effectively creating means to bar the cumulation of future dividends, could not be used to affect dividends already accrued without impairing the obligation of contract. These cases, of course, are based on the provision of § 10 of Art. I of the Federal Constitution which prohibits the states from impairing obligations of contract. But Congress is not subject to any such restriction, and the plan before this court is promulgated not by virtue of any state law, but under the paramount and exclusive power of the Federal government to regulate interstate commerce and its instrumentalities.

In the *Havender* Case, *supra*, the supreme court of Delaware made it clear that the public policy of that state did not prohibit the elimination of accrued unpaid and undeclared dividends. There the court found in §§ 59 and 59A of the General Corporation Law a caveat to preferred shareholders (apparently missing in § 26) that their right to accumulated unpaid and undeclared dividends might be eliminated. The court therefore held that those sections afford means to accomplish that end without conflicting with the prohibition of § 10 of Art. I of the Federal Constitution.

The policy of Delaware law and the concern of the courts of that state

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with this subject was well phrased in the *Havender Case*, *supra*, where the court said (11 A(2d) at p. 342): "There is no invasion of legal or equitable right, nor is there moral wrong, in disposing of dividends on preference stock accumulated through time other than by their payment in money, if the right to such dividends has not the status of a fixed contractual right . . . , and if the terms of disposal are fair and equitable in the circumstances of the case;"

Thus the public policy of Delaware is not against the compounding of accumulated dividends. It is only when state action in that regard would invade contract rights that the law of Delaware hesitates. But, as already noted, the plan before this court is not based on Delaware law, but on paramount Federal law which is not subject to § 10 of Art. I of the Federal Constitution.

[17, 18] It has been further suggested that in their application to the case at bar §§ 11(b) (2) and 11(e) of the act are "spoliative and confiscatory and in violation of the Fifth Amendment." But as the Supreme Court has on numerous occasions pointed out the proscription by the Fifth Amendment of the deprivation of property without due process of law applies only to direct appropriations. *Norman v. Baltimore & O. R. Co.* (1935) 294 US 240, 79 L ed 885, 55 S Ct 407, 95 ALR 1352; *Union Bridge Co. v. United States* (1907) 204 US 364, 51 L ed 523, 27 S Ct 367; *Scranton v. Wheeler* (1900) 179 US 141, 45 L ed 126, 21 S Ct 48; *Legal Tender Cases* (1871) 12 Wall. 457, 20 L ed 287.

Thus in answer to a similar conten-

tion it was said in the *Legal Tender Cases*, *supra* (12 Wall. at p. 551):

"That provision has always been understood as referring only to a direct appropriation, and not to consequential injuries resulting from the exercise of lawful power. It has never been supposed to have any bearing upon, or to inhibit laws that indirectly work harm and loss to individuals. A new tariff, an embargo, a draft, or a war may inevitably bring upon individuals great losses; may, indeed, render valuable property almost valueless. They may destroy the worth of contracts. But whoever supposed that, because of this, a tariff could not be changed, or a nonintercourse act, or an embargo be enacted, or a war be declared?"

That no taking within the meaning of the Fifth Amendment is here involved is apparent.

[19, 20] There is a further suggestion that §§ 11(b) (2) and 11(e) of the act do not authorize a plan altering the rights of stockholders *inter sese*. This is coupled with the additional suggestion that this court cannot enforce such a plan because § 11 (e) of the act gives the court jurisdiction only over the company and its assets but not over the stockholders.

Section 11(b) (2) expressly provides for the elimination of undue and unnecessary complications in the corporate structure of a company. But the corporate structure of a company consists of the classes of its securities outstanding and the respective rights of their holders. Certainly if undue and unnecessary complications in a company's corporate structure are to be eliminated the statute must envision a readjustment of those rights. Any

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other interpretation of the statute would render it ineffectual to accomplish one of its stated purposes.

Section 11(e) of the act gives the court jurisdiction over the corporation and its assets to the extent necessary to enforce and carry out the plan. Such jurisdiction is manifestly sufficient to work a readjustment of the rights of security holders. This is so, at least in so far as stockholders are concerned, because jurisdiction over the corporation carries with it jurisdiction over the corporate charter which is the source and mainspring of shareholders' rights. Having jurisdiction over the corporation and its charter the court has ample power. On numerous occasions stockholders' rights have been altered by courts acting under former § 77B of the National Bankruptcy Act and Chap. X of that act as amended, 11 USCA § 207, 501 et seq. In both such classes of cases the courts had jurisdiction not over the stockholders but merely over the corporation and its assets.

It would seem that stockholders of a corporation involved in proceedings under § 11(e) of the act are in no different position from stockholders of corporations in reorganization under § 77B or Chap. X. In each case the stockholders are afforded opportunity for hearing. They may take advantage of that opportunity or they may not. But in any event the court's jurisdiction over the corporation, deemed adequate to effect a readjustment of stockholders' rights under § 77B and Chap. X, is clearly sufficient to accomplish that purpose under § 11(e).

Finally as Mr. Justice Pitney said in *Blair v. United States* (1919) 250 US 273, 279, 63 L ed 979, 39 S Ct

468, 470: "Considerations of propriety, as well as long-established practice, demand that we refrain from passing upon the constitutionality of an act of Congress unless obliged to do so in the proper performance of our judicial function, when the question is raised by a party whose interests entitle him to raise it."

[21] The constitutionality of the act, however, is buttressed by a presumption to be overcome only "when the unconstitutionality exists beyond a rational doubt." *International Mercantile Marine Co. v. Stranahan* (1907) 155 Fed 428, 430.

Similarly in *Sarony v. Burrow-Giles Lithographic Co.* (1883) 17 Fed 592, the late distinguished father of my colleague Judge Coxe said: "The court should hesitate long and be convinced beyond a reasonable doubt before pronouncing the invalidity of an act of Congress. The argument should amount almost to a demonstration. If doubt exists the act should be sustained. The presumption is in favor of its validity. This has long been the rule—a rule applicable to all tribunals, and particularly to courts sitting at nisi prius. Were it otherwise, endless complications would result, and a law which, in one circuit, was declared unconstitutional and void, might, in another, be enforced as valid."

For the foregoing reasons the application will be granted. Submit findings of fact and conclusions of law and decree providing that this court approves the plan as fair and equitable to the persons affected and necessary to effectuate the provisions of subsection (2) of § 11(b) and that this court as a court of equity for the pur-

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pose of carrying out the terms and provisions of such plan takes exclusive jurisdiction and possession of the company and the assets thereof wherever located and appoints the company

as sole trustee in possession to hold and administer under the direction of the court and in accordance with the plan thus approved, the assets so possessed.

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East Ohio Gas Company
v.
Public Utilities Commission

[Nos. 27494, 27505, 27506.]

(— Ohio St —, 28 NE(2d) 599.)

Rates, § 48 — Powers of Commission — Absence of municipal contract.

1. Authority is conferred by § 4, Art. XVIII, of the state Constitution upon municipalities to contract with a public utility for its product or service. In the absence of such contract, the state Public Utilities Commission is authorized by statute upon hearing as therein provided to fix and determine just and reasonable rates or may find and declare the rate fixed by ordinance just and reasonable and ratify and confirm the same, p. 167.

Depreciation, § 67 — Natural gas — Depletion — Amortization of leaseholds.

2. In the application of the statutes of this state providing a method of fixing the price for a public utility product through a determination of the value of its property used and useful in the operation of such utility and of a proper rate of return thereon, the cost of wasting assets, if any, exhausted by the utility in rendering service must be amortized in connection with the operation of such property in order to restore depleted capital resulting from such depletion of assets; and in the case of a natural gas company engaged in developing productive leaseholds to supply gas to be sold in service, such wasting assets to be so amortized must comprehend not only the loss resulting from the exhaustion of gas reserves under its productive leaseholds, but the cost of acquiring and carrying for a time leaseholds taken in good faith to replenish and stabilize its gas supply which leaseholds upon test are later found to be unproductive and for that reason must be canceled and abandoned, p. 167.

Valuation, § 123 — Overheads — Estimates.

3. The amount to be allowed for general overhead charges does not depend upon proof of actual expenditures originally made but depends upon estimate, p. 171.

Appeal and review, § 35 — Commission decision — Gas leakage.

4. This court will not reverse an order of the Public Utilities Commission with respect to a finding on leakage when such finding is based upon expert

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testimony and factual evidence and is not against the manifest weight of the evidence, p. 173.

Return, § 101 — Natural gas companies — Confiscation — Reasonableness.

5. An annual rate of return of $6\frac{1}{2}$ per cent upon the valuation of producing and selling natural gas companies, for a 2-year period from 1937 to 1939, is sufficient to assure financial confidence in the utilities, is above the line of confiscation, and is not unfair or unreasonable, p. 174.

Rates, § 640 — Procedure — Stay of proceeding — Opportunity for inspection — Evidence.

6. Under the circumstances disclosed, it was not error on the part of the Commission to refuse to stay the proceedings awaiting the report of a Federal agency concerning the gas rate at the Ohio river, to deny the city of Cleveland an opportunity to inspect the gas pipes of appellant gas company to observe their condition, in failing to require the appellant to produce evidence of the original cost of its properties, or in failing to require appellant to produce other evidence, p. 175.

Procedure, § 33 — Rehearing — Enumeration of grounds.

Statement by Ohio supreme court that the requirement of the filing of an application for rehearing contemplates the enumeration only of the grounds which the Public Utilities Commission would be authorized to consider and determine, and that, accordingly, a question as to the constitutionality of statutes, not within the jurisdiction of the Commission, need not be raised, p. 166.

Commissions, § 30 — Jurisdiction — Constitutional questions.

Statement by Ohio supreme court that constitutionality of statutes is a question for the courts and not for a board or Commission, p. 166.

Contracts, § 15 — Validity and binding effect.

Discussion by Ohio supreme court of the validity and binding effect of contracts between municipalities and public utilities for the utility's product or service, p. 167.

Valuation, § 217 — Canceled and abandoned leaseholds.

Discussion of the inclusion or exclusion of the cost of canceled and abandoned leaseholds of a natural gas company in determining the rate base, p. 167.

Evidence, § 3 — Judicial notice — Interest rate.

Discussion of judicial notice of a decline in the general interest rate and of the amount of decline, p. 173.

[July 17, 1940.]

Headnotes by the COURT.

APPELS from decisions of Commission on complaint and appeal of natural gas utility as to ordinance passed by city of Cleveland regulating rates; orders of Commission affirmed. For decision by Commission, see 27 PUR(NS) 387.

These three proceedings are appeals and orders entered January 10 and to this court involving the findings January 20, 1939 (27 PUR(NS)

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387) by the Public Utilities Commission of Ohio in a hearing on a complaint filed by the East Ohio Gas Company to ordinance No. 106,556, passed by the city of Cleveland May 20, 1937, which regulated the rates to be charged by the East Ohio Gas Company in the city of Cleveland, Ohio.

Ordinance No. 106,556 provided that during the period between June 30, 1937, and July 1, 1939, the following rates, schedules, and prices should be effective: First 2,000 cubic feet of gas, 48 cents per thousand cubic feet; all over 2,000 cubic feet, 55 cents per thousand cubic feet; minimum charge, 75 cents per month.

The ordinance also provided penalties of 5 cents per thousand cubic feet for delay in payment of bills, a charge of \$1 for transfer of accounts, reestablishing a gas supply at a different location, or turning on a meter and a charge of \$2 for setting or installing meters.

In addition, this ordinance provided that the gas to be furnished should always have a heat value of not less than 900 British Thermal Units per cubic foot at a certain designated pressure and temperature, and that if the heating quality or pressure should fall below these standards for seventy-two hours in any one month, except for causes beyond the control of the East Ohio Gas Company, the company's returns under the ordinance should be discounted 2 per cent for each such period. The ordinance also gave preferences to domestic consumers over industrial consumers in case of shortages in supply, and provided that during any shortage of gas supply the company should apportion its available supply fairly among the munici-

palities it was under obligation to supply at the time of the enactment of the ordinance.

The ordinance provided that if, for a period of ten days, the company should fail to supply natural gas of the character and quality described in the ordinance or fairly apportion the natural gas available in case of an inadequate supply as required by the ordinance, or should fail to make certain designated extensions, the city could terminate the rights of the company to further operate under the ordinance or take such other legal remedy as it might have to enforce the obligations imposed on the company by the ordinance.

The East Ohio Gas Company filed complaint with the Public Utilities Commission pursuant to § 614-44, General Code, and at the time of the complaint filed a bond and elected to collect certain rates previously in force, as it was authorized to do by the provisions of § 614-45, General Code.

After extended hearings before the Public Utilities Commission, that body on January 10, 1939, unanimously found that the rates fixed by the Cleveland ordinance for the period from June 30, 1937, to July 1, 1939, were unreasonable and insufficient, and substitute rates were adopted which provided for the following charges:

"For the first 400 cubic feet, or less, or none, measured through any one meter, per month, 80 cents;

"For all over 400 cubic feet per month measured through such meter, per month, $5\frac{1}{2}$ cents per one hundred cubic feet."

In addition, the penalty for delin-

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quent payment of bills, and the charges for turning on gas and installing meters were continued at the same rates that ordinance No. 106,556 had established. It was further provided in the finding of the Commission that since eighteen of the twenty-four months covered by the ordinance had elapsed at the time of the fixing of the substitute rates, the substitute rates should take effect at once.

In deciding that the ordinance of May 20, 1937, was unreasonable and insufficient, and in determining the substitute rates, the Public Utilities Commission determined the valuation, as of June 30, 1937, of the property of the East Ohio Gas Company allocated to the city of Cleveland used and useful for the convenience of the public in the furnishing of natural gas for public and private consumption in that city to be \$32,840,410, of which amount \$21,955,755 represented property used for distribution of gas within the city of Cleveland.

At the same time, and as of the same date, the Commission determined the value of the several kinds and classes of production and transmission property of the Hope Natural Gas Company (an affiliate from whom the East Ohio Gas Company purchases natural gas for distribution in the city of Cleveland, Ohio, and elsewhere) and of the property as a whole, and found and ascertained this property to be valued at \$75,474,714.

After having valued the properties, the Commission determined that a reasonable annual rate of return to be allowed the East Ohio Gas Company for the furnishing of natural gas to the city of Cleveland was $6\frac{1}{2}$ per cent

of the value of its property used and useful for the convenience of the public, as found and ascertained by the Commission; that the fair and reasonable price to be paid by the East Ohio Gas Company to the Hope Natural Gas Company for gas supplied and furnished for distribution in the city of Cleveland, Ohio, was 38.5 cents per thousand cubic feet, provided in the contract now existing between those companies, adjusted by the terms of this contract to average 36.15 cents and 36.82 cents per thousand cubic feet for the years ending June 30, 1937, and June 30, 1938, respectively, by reason of a discount for gas sold the East Ohio Gas Company for special industrial sales.

The Commission then found and determined the annual charges properly allowed the East Ohio Gas Company for the depletion of wells for the years ending June 30, 1937, and June 30, 1938, to be \$383,790 for the year ending June 30, 1937, and \$330,584 for the year ending June 30, 1938. In computing these annual allowances, the Commission determined that as of June 30, 1937, the reproduction cost new, less depreciation, of gas well construction and equipment totaled \$1,819,261. To this was added general overhead charges of 10.4775 per cent or \$190,613. From the total of these two was subtracted the sum of \$303,382, which represents salvage on gas well equipment, leaving a net valuation of these two accounts in the sum of \$1,706,492.

Using the "decline in rock pressure" method to determine the percentage of exhaustion of these wells, the Commission found that the annual rate of depletion for the year ending June

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30, 1937, was 22.49 per cent and for the year ending June 30, 1938, 19.37 per cent. Using these percentages, the Commission computed the annual allowances above set forth.

The Commission computed the reasonable annual charges to be allowed for the depletion of leaseholds and natural gas rights for the years ended June 30, 1937, and June 30, 1938. The evidence shows that the operated leaseholds owned by the East Ohio Gas Company totaled 31,755 acres. Of these the company has purchased 4,031 acres for which the company originally paid \$2,019,643. After computing the remaining reserves, and allowing for prior depletions, the Commission found that these purchased acres had a valuation of \$713,242 as of June 30, 1937. After computing the percentage of this available gas reserve as of June 30, 1937, which was withdrawn during the year ending June 30, 1937, and the year ending June 30, 1938, as 20.54 per cent and 13.50 per cent respectively, the Commission fixed the annual allowance for depletion of these leases at \$146,500 for the year ending June 30, 1937, and \$96,288 for the year ending June 30, 1938.

In considering the 27,724 acres which constituted leaseholds developed by the company, the Commission found their value to be \$1,940,680. The evidence shows that the company carried these acres in the capital account at a valuation of \$235,205. However, the company presented evidence that to acquire and develop these leases it actually spent, exclusive of expenditures on wells that proved non-productive, in excess of \$6,000,000 or approximately \$220 per acre. Aft-

er reducing this development cost by the amount of exhaustion, the company showed a remaining development cost of slightly less than \$2,000,000 or \$71.31 per acre on the average.

These development costs include the sums spent by the company in acquiring, carrying, and canceling unoperated acres which eventually proved non-productive but which the East Ohio Gas Company had to acquire, test and cancel in order to locate the productive acres. They do not include expenditures for current delay rentals, which are a part of the cost of developing acreage not presently used.

The Commission, therefore, fixed the value of the company's 27,724 acres of developed leases at an average of \$70 per acre, or a total of \$1,940,680 as of June 30, 1937. After finding also that the estimated reserves recoverable as of June 30, 1937, were 28,660,000,000 cubic feet, and that 21.80 per cent of this reserve was withdrawn in the year ending June 30, 1937, and 19.74 per cent in the succeeding year, the Commission found and authorized an annual allowance for depletion for the year ending June 30, 1937, in the sum of \$423,068, and for the year ending June 30, 1938, the sum of \$383,090.

Considering then the other expenses properly allowable, the Commission found that an annual allowance for depreciation of the depreciable property of the company of $1\frac{1}{2}$ per cent was reasonable and proper, and that the gas purchased from the Hope Natural Gas Company plus that produced by the East Ohio Gas Company for use in the city of Cleveland, after adding thereto the operating expenses allowed by the Commission, cost the East Ohio

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Gas Company 38.20 cents per thousand cubic feet at the Cleveland gate for the year ending June 30, 1937, and 39.49 cents per thousand cubic feet for the year ending June 30, 1938. Using the valuation of distribution property determined by the Commission as of June 30, 1937, the Commission found that after adding taxes, the cost of this rate case, the expenses of distributing the gas within the limits of the city of Cleveland, and a return on the valuation at the rate of 6½ per cent to the gate cost of gas, and after deducting the revenue collected from the sale of regular industrial gas, the net cost of domestic and commercial gas in the city of Cleveland for the year ending June 30, 1937, averaged 68.88 cents per thousand cubic feet and for the year ending June 30, 1938, 71.25 cents per thousand cubic feet. And by adjusting the valuation of the property allocated to Cleveland to show the decline in material prices that took place between June 30, 1937, and June 30, 1938, the Commission determined that on a valuation adjusted to June 30, 1938, the cost of domestic and commercial gas in the city for the year ending June 30, 1938, was 70.70 cents per thousand cubic feet.

The Commission then found that the penalty provided in the ordinance to the effect that the company's returns under the ordinance should be discounted 2 per cent for variations in heat content or for pressures below standard was unfair and unreasonable; that the provision that in the event of inadequacy of its gas supply the company should apportion its available supply among the municipalities to which the company was under obligation to furnish gas was also un-

fair and unreasonable, and in violation of § 614-15, General Code; and that the provision purporting to give the city of Cleveland, Ohio, the right to terminate the right of the company to operate further under the ordinance for certain violations was in conflict with the provisions of §§ 504-2 and 504-3, General Code, and should be and were abrogated.

To this finding of the Commission and the substitute rates established, the city of Cleveland, on January 14, 1939, filed a motion to vacate, on the ground that the rates and charges fixed by the Commission's order of January 10, 1939 (27 PUR(NS) 387) as a substitute for the rates fixed by the city of Cleveland in ordinance No. 106,556, were merely maximum rates, and were not rates for the entire service of the East Ohio Gas Company in the city of Cleveland.

The Commission, in a finding and order dated January 20, 1939, clarified its findings of January 10, 1939, by a statement that the schedule of rates therein fixing substitute rates did not apply to regular and special industrial gas sold in the city of Cleveland but was a rate schedule for domestic and commercial gas, and not merely maximum rates.

Since throughout the hearings, the evidence of both the city and the company was directed to the determination of the proper rates for domestic and commercial gas as sold in the city of Cleveland, the Commission proceeded to credit against the total cost of gas the revenues during the ordinance period from sales of industrial gas at the rate schedules theretofore on file with the Commission during the ordinance period. Therefore, the Commission

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in its supplemental order stated, in substance, as follows:

That the rates, prices and charges found to be just and reasonable for service furnished by the East Ohio Gas Company in the city of Cleveland, Ohio, and by the order of January 10, 1939, substituted for the rates fixed by the city, were not intended to be and were not maximum rates, but were the rates and rate structure applicable to natural gas supplied to domestic and commercial consumers in the city of Cleveland, Ohio.

The just and reasonable rates and charges for regular industrial gas furnished by the East Ohio Gas Company for public and private consumption in the city of Cleveland for the period from June 30, 1937, to January 1, 1938, were the rates set forth in the East Ohio Gas Company's schedule of rates for "gas supplied for industrial purposes" as on file with the Commission during the period, which provided, in effect, the following rate schedule:

	Per M cu. ft.
For the first 2,000 cu. ft., or any portion thereof, each month	50¢
For the next 8,000 cu. ft. each month	55¢
For the next 190,000 cu. ft. each month	60¢
For all over 200,000 cu. ft. each month	48¢

Minimum charge, 75 cents per meter per month, with penalty of 5 cents per M cu. ft. for failure to pay the bill therefor within ten days from the date of maturity. Gas supplied under this classification was subject to discontinuance at any time at the will of the company.

From January 1, 1938, to the effective date of this supplemental order, January 20, 1939, the Commission found that the just and reasonable rates and charges for regular industrial gas for public and private consumption in the city of Cleveland were

the rates on file with the Commission during this period, which were, in effect, as follows:

	Per M cu. ft.
For the first 2,000 cu. ft., or any portion thereof, each month	50¢
For the next 8,000 cu. ft. each month	55¢
For the next 190,000 cu. ft. each month	60¢
For the next 4,800,000 cu. ft. each month	48¢
For the next 5,000,000 cu. ft. each month	44¢
For all over 10,000,000 cu. ft. each month	40¢

The same provisions in regard to minimum charges, penalties for late payment and for discontinuance of service, which were in the previous schedule, were included.

For the period from January 20, 1939, to June 30, 1939, the Commission established the following rate schedule for regular industrial gas furnished by the company for public and private consumption in the city of Cleveland:

	Per 100 cu. ft.
For the first 400 cu. ft. or less, or none, measured through any one meter, per month, 80¢	
For the next 199,600 cu. ft. each month	5.5¢
For the next 4,800,000 cu. ft. each month	4.8¢
For the next 5,000,000 cu. ft. each month	4.4¢
For all over 10,000,000 cu. ft. each month	4.0¢

If the bill is not paid within ten days after the maturity established therefor, 5 cents additional per M cu. ft. per month.

Gas supplied under this classification will be subject to discontinuance at any time at the will of the gas company.

The Commission also fixed the rates to be charged for special industrial gas furnished by the East Ohio Gas Company for public and private consumption in the city of Cleveland from June 30, 1937, to July 1, 1938, at the rates set forth and on file with the Commission for this period. This schedule of rates provided the prices at which natural or mixed gas would be furnished to consumers who had two or more manufacturing plants in one or more

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municipalities served by the East Ohio Gas Company, provided that the consumer took a minimum each month of 40,000,000 cubic feet if he operated two plants, 60,000,000 cubic feet if he operated three plants, 80,000,000 cubic feet if he had four plants and 100,000,000 cubic feet if he had five or more plants in municipalities served by the company. These rates were:

First 25,000,000 cu. ft. each month at a total of \$10,980.
All over 25,000,000 cu. ft. 38¢ per thousand cu. ft.

These rates were subject to the following discount if paid within ten days of the date of maturity:

First 25,000,000 cu. ft. each month \$750.
All over 25,000,000 cu. ft. each month, 3¢ per M cu. ft.

Gas supplied under this classification was subject to be discontinued at the will of the gas company.

For the period from July 1, 1938, to June 30, 1939, the remaining period covered by the ordinance, the Commission adopted and established the rate schedule on special industrial gas on file with the Commission during this latter period. This schedule was identical with the one in effect immediately prior to July 1, 1938, with the exception that a somewhat lower rate was established as follows:

First 25,000,000 cu. ft. each month at a total of \$10,980.
All over 25,000,000 cu. ft. 35.5¢ per M cu. ft.

The same discounts were allowed for prompt payment that were set forth in the prior ordinance and the same discontinuance clause was included.

Finally, the Commission affirmed the schedule, rates, prices and charges for natural gas furnished by the

East Ohio Gas Company to the citizens and private consumers and to the public buildings, grounds, streets, lanes, alleys, avenues, and market places in the city of Cleveland which the Commission found just and reasonable in the order of January 10, 1939, as supplemented by the order of January 20, 1939, and ordered that they remain in full force and effect for two years from the effective date of the ordinance.

The motion of the city of Cleveland to vacate the order and findings of the Commission under the date of January 10, 1939, was thereupon overruled.

From the original finding and order dated January 10, 1939, and the supplemental order dated January 20, 1939, both the East Ohio Gas Company and the city of Cleveland appealed to this court. Cause No. 27494 is the appeal of the East Ohio Gas Company from both findings; Cause No. 27505 is the appeal of the city of Cleveland from the finding and order dated January 10, 1939; and Cause No. 27506 is the appeal of the city of Cleveland from the supplemental finding and order dated January 20, 1939.

APPEARANCES: Jones, Day, Cockley & Reavis and Walter J. Milde, all of Cleveland, for East Ohio Gas Co.; Henry S. Brainard, Director of Law, Spencer W. Reeder, Charles F. Carr, and Ezra Z. Shapiro, all of Cleveland, and James W. Huffman, of Columbus, for city of Cleveland; Thomas J. Herbert, Attorney General, and Kenneth L. Sater, of Columbus, for Public Utilities Commission.

By the COURT: It is contended by counsel for the city of Cleveland that

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§ 614-46, General Code, as applied to the facts of this case, and the action of the Commission thereunder are unconstitutional.

Constitutionality of Appeal Statutes

Counsel for the gas company urge that a consideration of the constitutional questions presented in the brief of the city is precluded by reason of the fact that such questions were not raised before the Commission and are not referred to or stated in the application for rehearing before the Commission. In support of that position, § 543, General Code, is relied upon. That section provides for the filing of an application for rehearing and requires that the application "shall set forth specifically the ground or grounds on which the applicant considers said decision or order to be unreasonable or unlawful." Supporting cases cited are *Tiffin v. Public Utilities Commission* (1924) 110 Ohio St 659, 145 NE 32; *Travis v. Public Utilities Commission*, 123 Ohio St 355, PUR1931D 106, 175 NE 586; and *Dover v. Public Utilities Commission* (1933) 126 Ohio St 438, 185 NE 833.

In the first of these cases, it appears that no application for rehearing had ever been filed, and in the last case, the application for rehearing had not been filed within the required time. It is stated in the syllabus in the *Travis Case*, *supra*, that "the filing of an application for rehearing before the Public Utilities Commission is a jurisdictional prerequisite to an error proceeding from the order of the Commission to this court, and only such matters as are set forth in such appli-

cation can be urged or relied upon in an error proceeding in this court."

The specific question here presented is referred to only in the *Travis Case*. It there appears that Krumm, a trustee, who, as such, was the owner and holder of bonds of the utility company involved, filed his petition in this court under claim or right as presenting a debatable constitutional question, in which he sought review of the same order complained of by other parties in other cases which were jointly presented. Having reference to the contention made by counsel for Krumm that the record presented a question arising under the Constitution and that therefore he could file his petition in error as of right, it is stated in the opinion that "this question need not be decided, because, if a constitutional question be conceded, the proceeding must be filed within the time limited for prosecuting error from the Commission."

In the instant case, the application for rehearing was filed and the appeal taken within the required time. It seems quite obvious that the requirement of the filing of an application for rehearing contemplates the enumeration only of the grounds which the Public Utilities Commission would be authorized to consider and determine. It was the manifest duty of the Commission to proceed under and in accordance with the terms and provisions of the statute with the assumption of its constitutionality. Constitutionality of statutes is a question for the courts and not for a Board or Commission.

The provisions of § 4, Art. XVIII, of the state Constitution, confer authority upon municipalities to contract

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with a public utility for its product or service. Such contracts are entered into by the passage of an ordinance fixing the rate and terms for such product and service for a specified period and the filing of a written acceptance thereof by the company. A contract so entered into is binding upon both parties and is not subject to review by the Public Utilities Commission. *Link v. Public Utilities Commission*, 102 Ohio St 336, PUR 1921E 72, 131 NE 796; *Akron v. Public Utilities Commission* (1933) 126 Ohio St 333, 185 NE 415; *Cleveland v. Cleveland City R. Co.* (1904) 194 US 517, 48 L ed 1102, 24 S Ct 756; *Columbus R. Power & Light Co. v. Columbus*, 249 US 399, 63 L ed 669, PUR1919D 239, 39 S Ct 349, 6 ALR 1648.

[1] It does not appear, however, in this instance that there is any existing contract between the city of Cleveland and the utility fixing the rate and terms for product or service. In the absence of such contract, the Public Utilities Commission is authorized by § 614-46, General Code, upon hearing upon appeal to fix and determine the just and reasonable rate and order the same substituted for the rate fixed by the ordinance, or it may find and declare the rate so fixed by the ordinance to be just and reasonable and ratify and confirm the same. Section 614-45, General Code, permits the utility to collect the former rate until the Commission passes on its validity, and the Commission is authorized not merely to fix the rate for the remainder of the ordinance period but to substitute a new rate for the entire period covered by the ordinance. We are unable to see anything in the

statutes or in their application by the Utilities Commission violative of the home rule provision authorizing a contract between the parties.

An appeal to the Public Utilities Commission is provided for when the ordinance rate is not accepted, as was the case here. The effect of such appeal is clearly stated in the statutory provisions which have been discussed and applied in numerous cases. Service is to be continued, but the rate therefor will be such as is finally determined by the Commission, subject, of course, to review by this court. Pending hearing and final determination, the immediately previous effective rate may be charged if the utility enters into an undertaking as prescribed by statute. Such appeal does not constitute a waiver of the right to charge and collect such rate as may be finally established as the fair and reasonable rate. *Cleveland v. Public Utilities Commission*, 126 Ohio St 91, PUR1933E 73, 183 NE 924.

Delay Rentals

[2] Another controversy between the city of Cleveland and the East Ohio Gas Company grows out of the question as to whether the cost of canceled and abandoned leaseholds, held for a period of time before abandonment to determine whether they could be made productive, should be treated as a part of the cost of the used and useful leaseholds retained by the company and operated by it in the production of gas, and should be included in the rate base.

The city conceded that the nominal cost of acquisition of leases, which were drilled, found to be productive and transferred to operated lease-

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holds, and the cost of delay rentals paid on these particular leases while unoperated during exploration up to the time they were drilled and found productive, with interest on these costs, may be properly carried into the rate base.

The company, on the other hand, claims that not only these items should be included in the cost of operated leases, but that the nominal cost of the acquisition of unoperated leases canceled in the process of exploration in the average amount of 52 acres unoperated leases canceled to one acre found to be productive, and the delay rentals paid during the exploration period on these average 52 acres canceled to one acre operated leases developed, together with interest on these items, should also be charged in the rate base as a part of the actual cost of the presently operated used and useful leaseholds now in production.

There is no disagreement that delay rentals paid on unoperated but retained leases, as distinguished from abandoned and canceled leases, are not and should not be capitalized until these leases are operated, but these rentals are charged to operating expense in accordance with the Commission's requirements as to accounting. All agree that such rentals should not be allowed and were not allowed as a current expense for rate-making purposes.

Evidence admitted shows that in the thirty-two years (1906-1937), the company acquired and sorted about 2,500,000 acres out of which it found approximately 48,060 acres of productive leases of which, in 1937, it operated 27,724 acres; that it canceled and abandoned 52 acres for each productive acre retained. Therefore, the

company claims that the cost of its 48,060 operated acres drilled between 1906 and 1937 includes the cost of acquiring and canceling leaseholds covering 2,486,627 acres, together with the delay rentals paid thereon during the same years; that since only 27,724 acres of the 48,060 operated leaseholds acres, which the company had drilled in its history, were still operated in 1937, a proportional part of the total delay rentals paid and cost of acquisition of the leaseholds abandoned, in the ratio that the present company drilled operated acreage bears to the total company operated acreage, should be capitalized as a part of the rate base.

In addition to the 27,724 acres of operated leaseholds developed by the company itself, the record shows that it operated 4,031 acres which it purchased already developed. The company claims that in this purchase from the owner there was included the entire cost of the operations of the owner in finding these productive acres, corresponding to the cost of abandoned leases and delayed rentals thereon in developing its own operated acres.

For the purpose of showing that the cost of its developed leaseholds was reasonable, testimony was offered, received and undisputed to the effect that its 4,031 operated acres so purchased were estimated as having 6,686,000-000 cubic feet remaining reserves valued at \$713,242 or \$177 per acre, or 10½ cents per thousand cubic feet of remaining reserves, or a cost of 3½ cents per thousand cubic feet more than the cost of gas from operated acres which the company itself had developed under leases.

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The Commission adopted substantially the view of the company on the subject of the cost of gas developed under leases and in its finding said (27 PUR(NS) at p. 400):

"The company presented evidence showing that to acquire and develop these leases it actually spent, exclusive of expenditures on wells that proved nonproductive, in excess of \$6,000,000, or approximately \$220 per acre. It reduced this development cost by the amount of exhaustion on these leases to the date certain, showing a remaining development cost of slightly less than \$2,000,000, or \$71.31 per acre on the average. This is equivalent to about 7 cents per thousand cubic feet of remaining reserves.

"These development costs necessarily include the sums spent by the company in acquiring, carrying, and canceling unoperated acres which eventually proved nonproductive but which the company had to acquire, test, and cancel in order to locate the productive acres in service on the date certain. They do not include expenditures for current delay rentals since these are a part of the cost of the development of future operated leases not presently used. This evidence on the part of the company was in nowise challenged and showed that the cost of developing its own gas supply by the methods it did use was substantially less per acre and per thousand cubic feet of reserves than the cost of its purchased gas supply.

"Upon consideration of all the evidence we fix the present value of the company's 27,724 acres of developed leases at an average of \$70 per acre, or a total of \$1,940,680 as of June 30, 1937. This finding places in the rate

base for acres developed by the company a little less than 7 cents per thousand cubic feet as compared with 10½ cents per thousand cubic feet of reserves for acres purchased by the company as operated, and as against 9.6 cents per thousand cubic feet which the city recommended to be included for the value of the leaseholds purchased by the company as operated."

The city claims that the Commission erred in its finding on this subject and argues that this court, in the case of *East Ohio Gas Co. v. Public Utilities Commission* (1938) 133 Ohio St 212, 22 PUR(NS) 489, 12 NE (2d) 765, held that a depletion allowance could not include the cost of acquiring and carrying presently operated acres, and, a fortiori, could not include the cost of unoperated acreage abandoned or canceled.

However, the Supreme Court of the United States in the case of *Columbus Gas & Fuel Co. v. Ohio Pub. Utilities Commission* (1934) 292 US 398, 78 L ed 1327, 4 PUR(NS) 152, 54 S Ct 763, 766, 91 ALR 1403, reversing this court (127 Ohio St 109, PUR1933D 238, 187 NE 7) indicates that in giving effect to the terms of the Ohio statute as providing a method of fixing the price for a utility product through a determination of the value of its property used and useful in the operation, a strict construction cannot be applied to a utility such as a gas company which suffers wasting assets.

Justice Cardozo, speaking for the court in that case, said (4 PUR(NS) at p. 157):

"We have seen in the *Dayton Case* [*Dayton Power & Light Co. v. Ohio Pub. Utilities Commission* (1934)

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292 US 290, 78 L. ed 1267, 3 PUR (NS) 279, 54 S Ct 647] that . . . the Commission included among the operating expenses . . . an annual allowance of \$4,158,954, to amortize the value of leaseholds . . . (. . . then in use) and of the well structures and equipment used in connection therewith, and thus provide a fund that would restore the depleted capital when the gas had been exhausted. The same allowance was made here.

"Upon the appeal by the city of Columbus to the supreme court of Ohio, the item thus allowed was excluded altogether. The court did not deny that without the creation of a fund to replenish wasting assets the affiliated seller would be left with only a salvage value for leases, wells, and fittings after the exhaustion of the gas. It put its judgment upon the ground that the statute of Ohio defining the powers of the Commission and the method of appraisal makes no provision for depletion (General Code Ohio, §§ 499-9 to 499-13), and that the statute, and nothing else, gives the applicable rule. We may assume in submission to the holding of that court that the amortization allowance must be rejected if the rate-making process is to conform to the rule prescribed by statute, irrespective of any other. That assumption being made, the conclusion does not follow that the statutory procedure may set at naught restrictions imposed upon the states and upon all their governmental organs by the Constitution of the nation.

"To withhold from a public utility the privilege of including a depletion allowance among its operating expenses, while confining it to a return

of 6½ per cent upon the value of its wasting assets, is to take its property away from it without due process of law, at least where the waste is inevitable and rapid. . . . Plainly the state must either surrender the power to limit the return or else concede to the business a compensating privilege to preserve its capital intact. . . . It is idle to argue that a company using up its capital in the operations of the year will have received the same return as one that at the end of the year has its capital intact and interest besides.

"We hold that a fair price for gas delivered at the gateway includes a reasonable allowance for the depletion of the operated gas fields and the concomitant depreciation of the wells and their equipment. What that allowance shall be has not yet been considered by the supreme court of Ohio, invested with jurisdiction to review the law and facts. . . . There will be power, we assume, to direct another hearing if the basis for an intelligent judgment is lacking in the record. When the allowance has been fixed and has been charged to operating expenses, it will supply the answer to other questions in controversy now. There will be no need, when that is done, to include in operating expenses a separate provision for the payment of 'delay rentals' upon leases in reserve."

In view of the above discussion by the Supreme Court of the United States, what is meant by an allowance for wasting assets? Primarily, it undoubtedly refers to an amortization of the decrease of gas reserves under a leasehold as the gas is removed. But all leaseholds taken by the company in good faith with the reasonable expect-

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tation that gas may be found underneath them, represent a cost to the company, and are, while held by the company, assets of the company. When some of such leaseholds must be abandoned because upon test it is found that they will not produce gas, there is a diminution or wasting of assets in the process which cannot well be differentiated from the diminution or wasting of assets on other productive leaseholds by the gradual removal of the gas reserves underneath them. In both cases, the leaseholds eventually become worthless and must be abandoned, and when so abandoned the company has suffered a waste of assets to the extent of the money invested in them.

The cost of the unproductive abandoned leaseholds, including delay rentals while they were held by the company, must be charged back as a loss and represents a wasted or wasting asset.

It must be apparent that the cost of acquiring, holding for a time during which delay rentals must be paid, testing and finally canceling unproductive acres is the only method by which productive gas acres can be found and developed, and it is equally apparent that this expense must be borne by the consumer who ultimately uses the gas from the productive acres.

We think the Commission, in taking this position and in making its finding accordingly, was fully justified under the law.

Gas Purchased from Affiliate

Another complaint of the city of Cleveland is that "the Commission erred in making an excessive allowance for gas purchased from the af-

filated [The] Hope Natural Gas Company and in failing to find that the company has not sustained the burden of proving an allowance for payments to Hope in excess of 30 cents per thousand cubic feet at the Ohio river."

The aggravating cause of the unending and understandable strife on this point is the complicating fact that the East Ohio Gas Company and the Hope Natural Gas Company are affiliated corporations, both being owned by the Standard Oil Company of New Jersey. This is the third time in six years that this price has been litigated.

From the welter of figures in the record and briefs it appears that this contract price averaged 36.15 cents during the year ending June 30, 1937. During the following year the average was 36.82 cents per thousand cubic feet.

The East Ohio Gas Company purchases approximately 70 per cent of its gas from the Hope Company whose producing fields are mainly in the northern part of West Virginia. About fifteen years ago this supply was found to be inadequate. To meet this difficulty the company extended its pipe-line system over one hundred miles to the southern part of West Virginia at a cost of more than \$6,000,000. It also entered into long-term contracts with a number of producers for a supply of gas. There is no evidence to indicate that these transactions were not conducted in good faith in order to meet the fluctuating seasonal demands.

General Overheads

[3] While the price allowed by the

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Commission is liberal, this court would not be justified in holding it excessive.

The Commission's finding with respect to general overheads reads as follows (27 PUR(NS) at p. 404):

"General Overheads. General overheads are a matter of proper estimate. Ohio Utilities Co. v. Public Utilities Commission, 267 US 359, 69 L ed 656, PUR1925C 599, 45 S Ct 259. The general overheads set forth in Table 1 are based upon the percentages agreed to between the parties in the former Cleveland Case (E. O. X. 19, pp. 19-20), agreed to between the company and the present city experts in the Akron Case (E. O. X. 3, p. 9, 17 PUR(NS) 433, 440), used by the company, Commission and city engineers throughout their reports and valuations made in connection with this case and testified to by Mr. Rhodes as less than are actually encountered in the construction of large natural gas properties."

The total general overhead allowed is 16 per cent of the estimated reproduction cost new, broken down as follows: Interest during construction—7 per cent; preliminary organization expense—0.5 per cent; taxes during construction—2 per cent; engineering and superintendence during construction—4.5 per cent; and administrative and legal expense during construction—2 per cent.

The city of Cleveland does not contest the items but merely the percentages allowed.

The city's contention is that the allowance was excessive because made on the basis of theory and not on the basis of the actual experience of the company, and that the finding was therefore arbitrary and unreasonable.

35 PUR(NS)

The record discloses that the city of Cleveland and the East Ohio Gas Company had agreed upon a schedule of general overhead allowances for 1931, which schedule was again used in the instant case. The city of Cleveland contends that it was error to use this schedule as of June 30, 1937, because economic conditions have changed since 1931, and figures which were then applicable are no longer reasonable when applied to the year 1937. It must be noted, however, that the record fails to disclose any evidence submitted by the city showing, or tending to show, what figures would be applicable and reasonable for the year 1937. It was only after all the evidence had been introduced into the record that the city, through its counsel, for the first time raised the question in argument.

The proceeding is here for review on the record, and to the record we are obliged to confine ourselves. The city contends that the figures which the Commission used and adopted are conjectural. Yet the record contains no evidence adduced by the city showing what figures are not conjectural. On the other hand, there is a substantial basis in the evidence contained in the record for the Commission's estimate that the general overheads would amount to 16 per cent as above set forth. Thus, there is in evidence an agreement between the company and the city, entered into in 1933, stipulating that 16 per cent should be the allowance for general overhead in 1931. There is also in evidence a report, bearing date of January, 1936, from the city engineers to the city council, which contains the same general overhead figures. On December 17, 1936,

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a city engineer and a gas company engineer made a joint report to the city council in which all general overheads were computed in accordance with the 1931 schedule of general overheads. The work sheets of the city engineer, made in connection with the report he submitted to the city council on April 1, 1937, show that he used the same schedule of general overheads. It is thus seen that the 1931 schedule of general overhead estimates was used as a basis by the city engineers, relied upon by them and never questioned, and that the city introduced no evidence in derogation thereof. The attack against the 1931 schedule came not in the form of evidence introduced into the record by witnesses competent to express expert opinions, but it came by argument of counsel after the evidence was all introduced. The function of argument is to interpret and not to replace evidence. Whether it was right or wrong for the Commission to use the 1931 estimate as a basis must be judged by the evidence alone. Yet we find no evidence in the record which disputes the correctness of the 1931 estimate which the Commission used as a basis for its allowance in this case. There is no testimony in the record adduced by the city engineers that the 1931 estimate, as applied to 1937, is excessive, or that it would be unfair to apply it. In view of the state of the record, acceptance of the 1931 estimate of the general overhead for 1937 was not arbitrary, but, on the contrary, its rejection would have been arbitrary. Its acceptance was based on evidence which was not contradicted or in any way challenged by competent evidence of the city. Being supported by substantial evidence, the

finding of the Commission cannot be said to be arbitrary.

With respect to the question of reasonableness, suffice it to say that the Commission is protected by the presumption that its findings and orders are just and reasonable.

With respect to the city's contention that the 16 per cent allowance was excessive because the company offered no evidence that such an amount had been actually expended in the construction of its property, or that it would necessarily be expended in reproducing the property, suffice it to say that the amount to be allowed for general overhead charges does not depend upon proof of actual expenditures originally made, but depends upon estimate. *Ohio Utilities Co. v. Public Utilities Commission, supra.*

Among the percentages contested is the rate of interest allowed, the city arguing that 7 per cent is too high. While this court will take judicial notice of a decline in the general interest rate, it will not take judicial notice of the amount of the decline. There is no evidence in the record, either of the fact of decline or of the amount. The only evidence in the record bears upon the rate of interest on call money and hence is not here applicable.

Leakage and Unaccounted for Gas

[4] The city challenges the allowance of 4,000,000,000 cubic feet per annum fixed by the Commission for leakage and unaccounted for gas in the Hope system and contends that a fair and reasonable allowance would be 1,000,000,000 cubic feet which was the amount fixed by the Commission in the former Cleveland and Akron cases. The Commission in its findings

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asserts that the record contains "substantial additional factual evidence" supporting the present allowance.

The East Ohio Gas Company measures all but a small fraction of its gas whether produced by itself or purchased from others. On the other hand Hope measures the gas it buys from others but does not meter all the gas produced from its own wells; consequently it is impossible to determine with absolute accuracy Hope's leakage and unaccounted for gas, and methods of computation must be resorted to.

The city's contention is grounded mainly upon the testimony of A. P. Learned, an expert. Basing his computation upon the leakage experience of the East Ohio Gas Company, he fixed the leakage and unaccounted for gas of Hope at 100,000 cubic feet per mile per year or 1,000,000,000 cubic feet per year for the whole system.

The company's expert, George I. Rhodes, recites facts which tend to show that Learned's conclusions are wrong and inaccurate even if the East Ohio Gas Company's experience is used as the basis for calculation. Rhodes also advanced what he claims is a more accurate formula. He took Hope's books and from them found the ratio of metered to calculated production. By applying this ratio to the average annual calculated production from all wells he found the average annual equivalent metered production from all wells. From the amount obtained he subtracted the average annual accounted for production. The result was 4,779,000,000 cubic feet which he found to be the average annual unaccounted for gas from purchases and production.

To prove the accuracy of his formula, Rhodes took the experience of other West Virginia companies as found in reports made by them to the West Virginia Public Service Commission and showed that their line loss per mile exceeded that of Hope as he estimated it.

The Commission was warranted in fixing 4,000,000,000 cubic feet per annum (which is an amount less than Rhodes' estimate) by expert testimony and "substantial additional factual evidence." The finding in this behalf is not unreasonable, unlawful or against the manifest weight of the evidence.

Rate of Return

[5] The East Ohio Gas Company contends that the Commission erred in allowing a rate of return of only 6½ per cent, whereas the Commission should have allowed, and erred in failing to allow, a return of at least 7½ per cent. The company contends also that the Commission erred in fixing a rate of return of only 6½ per cent as reasonable for the Hope Natural Gas Company, where as a rate of return of at least 8 per cent would be reasonable.

On the other hand the city claims the Commission erred in finding that a return of 5½ per cent "would be not only unfair and unreasonable but border on the line of confiscation," and in failing and refusing to find and conclude as requested by the city that even a 5 per cent return on the present fair value would be nonconfiscatory.

The Commission in its finding upon a fair rate of return for the period between June 30, 1937, and July 1, 1939, relied upon the case of *East Ohio Gas Co. v. Public Utilities Com-*

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mission (1938) 133 Ohio St 212, 22 PUR(NS) 489, 12 NE(2d) 765, which involved fixing the rates in Akron for a 4-year period from May 19, 1933, to May 19, 1937. In the Akron proceeding the company insisted upon a return of $7\frac{1}{2}$ to 8 per cent and the city a rate of 6 per cent as adequate. In the present case the Commission recognized its duty of establishing a rate which would be higher than the line of confiscation and quoted the following from page 229 of 133 Ohio St (22 PUR(NS) at p. 500) of the opinion of this court in the Akron Case: "A return of $6\frac{1}{2}$ per cent on the valuation was allowed by the Commission, which is similar to that allowed in other cases before this court for approximately the same period. A rate of return may vary as to times depending on business conditions, but it must be one that shall be reasonably sufficient to assure confidence in the financial soundness of the utility. Bluefield Water Works & Improv. Co. v. West Virginia Pub. Service Commission, 262 US 679, 692, 67 L ed 1176, PUR1923D 11, 43 S Ct 675, 678.

On the same page of the opinion Judge Gorman said that "a rate of return of $6\frac{1}{2}$ per cent during the early years of the [Akron] ordinance would be high, but that during the latter years was fair and reasonable. It is not a rate that could be said to be confiscatory."

The Commission stated in the present rate-making proceeding (27 PUR(NS) at p. 412): "The record in this case discloses a substantial improvement in business conditions and resultant corporate earnings over the average prevailing during the peri-

od of the Akron ordinance and offer the 1931-36 period of the Cleveland ordinance involved in the former Cleveland Case (4 PUR(NS) 433) . . . and in our opinion a rate of return of but $5\frac{1}{2}$ per cent as suggested by the city would be not only unfair and unreasonable but border on the line of confiscation, while on the other hand we are not satisfied that conditions warrant a rate of return of $7\frac{1}{2}$ per cent as claimed by the company."

The conclusions of the Commission as to the rate of return are supported by the record and a rate of $6\frac{1}{2}$ per cent is sufficient to assure confidence in the financial soundness of the gas companies, is not confiscatory and is not unfair or unreasonable as between the public and the utilities.

Practice and Procedure

[6] The city of Cleveland, contends there were errors in practice and procedure committed by the Commission of such a material nature as to require a reversal and a remand of the cause.

These alleged errors relate to the refusal to grant a stay of the proceedings until the Federal Power Commission had acted on the city's application for an investigation of the rate charged by the Hope Natural Gas Company to the East Ohio Gas Company at the Ohio river; denying the city an opportunity to inspect full pipe lengths of transmission lines; failing to require the East Ohio Gas Company to produce available evidence of the original cost of its properties; and failing to require the gas company to produce relevant and material evidence on other controlling matters, including the river rate.

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As to the first complaint, the Commission had before it a rate ordinance of only two years' duration, expiring July 1, 1939, and had to move with celerity in the main objective of fixing the fair and reasonable rate which the consumers should pay for their gas as it came from the burner tips on their premises. And in so doing it was the duty of the Commission to fix a rate in Cleveland as of June 30, 1937. Any river rate the Federal Power Commission might designate would be of an entirely prospective nature and would consequently be of no benefit or controlling force in the present proceedings.

It was found by the Commission that the principal purpose of the city in demanding the right to inspect the pipes comprising the transmission lines was to reassert its theory that an accrued depreciation should be based on the deepest pit in a 20-foot length of pipe. This method for determining accrued depreciation had been rejected by the Commission in at least two previous cases, as unsound and impractical, and the Commission adopted a formula or test to determine this element, which was denoted as fair and adequate in the case of *East Ohio Gas Co. v. Public Utilities Commission*, *supra*, known as the Akron Case.

As to the claimed error on the part of the Commission in not requiring the East Ohio Gas Company to produce a statement of the original cost of its properties, it was testified by the company accountants that such cost did not appear upon the company

books with any completeness, was not readily ascertainable from any other source and, if it could be obtained, would not prove definite or satisfactory in determining the fact for which it was desired.

The city did not offer evidence to disprove these statements nor did it avail itself of the opportunity to examine the company's books to determine any such costs. Besides, in Ohio, there is no statute requiring the Commission to consider evidence of original cost in fixing a fair and reasonable rate if such rate can be determined on other reliable bases.

Concerning the complaint that the Commission erred in not ordering the company to produce other evidence, the Commission determined, under the circumstances, that the company was not obligated to do so. However, the company's records were made available to the city, its engineers and accountants, so that the information could be ascertained and presented by the city if it deemed the same of importance in the proceeding.

A careful examination of the claimed errors in connection with practice and procedure fails to show anything of sufficient gravity to warrant a reversal.

For the reasons stated the orders of the Commission are not unlawful or unreasonable and they are therefore affirmed.

Orders affirmed.

Weygandt, C. J., and Day, Zimmerman, Williams, Matthias, and Hart, JJ., concur.

COLE v. LATROBE WATER CO.

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George H. Cole et al
v.
Latrobe Water Company

[Complaint Docket No. 12745.]

Public utilities, § 23 — Tests of status — Compensation for service.

1. A company owning and operating facilities for impounding, distributing, and furnishing water for compensation does not cancel its established relationship with water users by the mere failing or refusing to collect some of the compensation while continuing the relationship in all other respects, p. 182.

Public utilities, § 121 — What constitutes — Water.

2. A water company which owns and operates facilities for impounding, distributing, and furnishing water for compensation to those of the public who receive water from its transmission mains between its filtration plant and a certain reservoir is in de facto public utility relationship to such members of the public and in furnishing water service to the public is doing so within the meaning of the public utility law, p. 182.

Service, § 480 — Discontinuance — Raw water — Violation of permit.

3. The Commission must order a water company to cease and desist the serving of raw water not subjected to filtration and chlorination to the public, in violation of the terms of a permit from the state department of health, p. 182.

Service, § 480 — Duty to serve — Cost of service — Water.

4. A water company need not furnish water to a group of consumers to which it has been furnishing raw water illegally, in violation of a state permit, where the necessary facilities to furnish filtered and chlorinated water would cost in excess of a reasonable sum, p. 182.

[June 10, 1940.]

COMPLAINT against discontinuance of water service; company ordered to cease furnishing raw water without filtration and chlorination and complaint dismissed.

By the COMMISSION: Complainants seek to have the Latrobe Water Company continue to supply water to them and to others. The present supply of water to their premises is from respondent's raw water transmission main in Ligonier, Unity, and Derry

townships of Westmoreland county, between its Trout run reservoir and its filter plant. The respondent gave written notice to each of the users of water from this transmission main that it would discontinue this water supply to their properties on May 1,

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1939, later extending the time to May 15, 1939. As a result of these notices, the complainants made application in the court of common pleas of Westmoreland county that an injunction issue restraining the Latrobe Water Company from discontinuing the water supply. On May 15, 1939, the court ordered and decreed that a preliminary injunction issue, whereupon complainants filed the instant complaint with the Commission.

Hearings were held June 5, 1939, June 26, 1939, and September 28, 1939. The parties filed briefs with the Commission and oral argument before the Commission was on January 29, 1940.

The Latrobe Water Company was chartered November 13, 1883, by the commonwealth of Pennsylvania, under the Act of April 29, 1874, for the purpose of supplying water to the public in the borough of Latrobe, in Westmoreland county. Derry Township Water Company was chartered June 26, 1884, under the same act for the purpose of supplying water to the public in the township of Derry, Westmoreland county. On April 8, 1885, that company was merged with the Latrobe Water Company so that the charter territory of the Latrobe Water Company now is borough of Latrobe and Derry township. The service territory of the Latrobe Water Company was extended in 1906 under the provisions of Act of 1901, P. L. 270, to include the village of North Latrobe, which is adjacent to Latrobe and is a community in a small portion of Unity township, approximately 3 miles from the portion of Unity township traversed by respondent's raw water transmission line.

35 PUR(NS)

Prior to 1920, the supply of water for the Latrobe Water Company was taken from Loyalhanna creek at Kingston station and pumped to the present filtration plant from which the treated water discharged into the adjacent filtered water reservoir, in Derry township, about one mile from Latrobe borough. Loyalhanna creek became so contaminated with sewage and mine drainage that the respondent obtained another source of water supply. About 1920, the water company erected a dam in Ligonier township on Trout run, about 1½ miles from its junction with the Loyalhanna creek, to form an impounding reservoir holding about 400,000,000 gallons, to store a supply of water, and constructed a new connecting 24-inch pipe line about 6 miles long. The water from the Trout run reservoir is transmitted by gravity, through this 24-inch pipe line which follows adjacent to Trout run and Loyalhanna creek in Ligonier, Unity, and Derry townships, to the pumping station at Kingston and thence it is pumped to the filtration plant. Use of this water and this 24-inch line began about July 1, 1920.

The properties of the complainants are located along the route of this transmission main from which complainants now receive unfiltered and untreated water.

The numbers of users of water from the raw water main, as shown by complainants' Exhibit No. 11, are: Derry township, 14; Unity township, 20; Ligonier township, 54; total 88. Complainants' Exhibit No. 12 shows that others along the raw water line have indicated their desire for water service from respondent as follows:

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Derry township, 3; Ligonier township, 41; total 44. All of these total 132, none of whom have made written application to the company for service.

On October 28, 1920, the department of health of the commonwealth of Pennsylvania, in response to an application and following its engineering study, issued Permit No. 2536 approving, under certain stated conditions, of the use by the Latrobe Water Company of the waters of Trout run as a source of supply for distribution to its consumers.

The second condition of the permit reads:

"The approval of Trout run as a source of public water supply is given with the distinct understanding that all water therefrom served to the public must be subjected to filtration and chlorination. The intake on Loyalhanna creek may be maintained so as to provide an auxiliary supply but its use is subject to conditions set forth in a prior permit approving said supply."

The third condition of the permit reads:

"Within thirty days of the date of this permit, the company shall submit to the state department of health for approval plans of scheme for serving filtered water to all consumers between the dam on Trout run and the filtration plant."

It is thus indicated in this third condition that the department of health then recognized that there were consumers between Trout run dam and the filter plant who were receiving untreated Trout run water at that time.

The record shows that respondent

company having already begun the use of the waters of Trout run in 1920 and abandoned the use of Loyalhanna creek, except as an emergency supply, failed to comply with the second and third conditions of the permit with respect to consumers in Derry, Unity, and Ligonier townships who continued to receive Trout run water which was not subjected to filtration and chlorination.

On the contrary, following the issuance of the department of health permit, dated October 28, 1920, and with respect to the third condition, the water company notified the department of health by letter dated December 1, 1920, "that all consumers along that line had been shut off following the issuance of that specific permit." As far as the record shows, this continued to be the status before the department of health until 1936, when the water company's new local manager inquired of the department's district engineer regarding the position of the water company in furnishing the raw water for use by residents along the raw water line between the Trout run reservoir and the filtration plant. Upon this showing that the water company was supplying the raw water from Trout run to these users, the department of health proceeded to insist on compliance by the water company with the second condition of the permit dated October 28, 1920. From 1936 to date, the time for this compliance was extended from time to time, in an effort to allow proper opportunity for all concerned to make other water supply arrangements. Preliminary steps by respondent to comply with the second condition of the department of health permit by

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discontinuing this water supply to the properties of residents along the raw water line, as evidenced by the written notice by the water company to each of the users of the raw water, resulted in the injunction proceeding and this complaint proceeding.

Complainants show, by complainants' Exhibit No. 6 of statements by seventy-two users of water (corroborated by testimony of Joseph Chic kosky, page 163; Charles E. Neiman, page 169; George H. Cole, pages 42 and 65; Joseph Nied, page 102; Ralph D. Hoffman, page 113; F. F. Steele, page 123; Walter L. Dapper, accountant for Ligonier Valley Railroad; also the testimony of Estelle J. Stader, Dr. Edward E. Newhouse, Verna Curry, M. E. Smith, Mrs. Van A. Bittner, F. A. Klaus, and G. C. Kessler, which by agreement of counsel, was admitted on the record as testifying to statements made in complainants' Exhibit No. 6; and also by testimony of James Mitchell, page 181; and John Giesey, page 231; both employees of respondent) that the respondent company, at various times prior to 1936, connected or caused to be connected to the aforesaid raw water main several users of water, including the complainants; and it is further shown that the respondent company had knowledge of the connections to the main and that its local manager or employees collected an annual charge of \$10 each from some of the users up to 1936. These collections ceased in 1936, when a new local manager assumed charge of the company's water plant.

Complainants show, by the testimony of G. E. Anderson (pages 137 to 151) and I. B. Shallenberger

(pages 205 to 212), that water was used from the raw water transmission main by and with the consent of the water company's officers. C. C. Wedemeyer (page 222) and L. S. Buttler (page 243), who are now respondent's manager and vice president, respectively, testified that George C. Brooks was a former secretary and treasurer and L. S. Conklin was a former director of the Latrobe Water Company, and witnesses Anderson and Shallenberger testified that these former officers of water company had knowledge of the connections to the main.

The respondent attempts to show that all of the takers of water from the raw water main from 1920 to 1936 had connected to the main without the Latrobe Water Company's consent or knowledge and that money paid by these takers to employees of respondent had not been entered on the records or paid over to respondent. In this respect we refer to the testimony of respondent's witness (Williamson, pages 247 to 265), wherein he stated (page 257) that the records of the company prior to 1932 were "kept down in a little shack where we kept our supplies" and were destroyed in a flood. Obviously, respondent's testimony in regard to payments made prior to 1932 had little weight.

Of the eighty-eight takers of water from the transmission main, respondent admits that two, Gibson C. Bates and the Kingston station of the Ligonier Valley Railroad, both in Derry township, were regularly established consumers of respondent within its charter territory and were furnished with untreated water from the raw water main. Both were billed for wa-

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ter service and payments were recorded on respondent's books until 1936, when billings and receipt of payments were discontinued.

It would be difficult for complainants to obtain usable water to meet their needs from another source. Water from wells in this area is unfit for domestic use. Complainants' homes are along or near Loyalhanna creek, a stream contaminated with mine drainage and sewage, rendering water from it unfit for domestic use. With respect to the Loyalhanna creek, it has been shown that the waters of Trout run formerly flowed into Loyalhanna creek upstream from complainants' homes. Since the construction of the dam, Trout run water has been diverted so that it does not flow into Loyalhanna creek. The respondent company abandoned contaminated Loyalhanna creek as the principal source of water supply in 1920, retaining it for use as an emergency supply only.

Engineer for the respondent testified that it would cost in excess of \$89,800 (respondent Exhibit "E") to construct an extension of a filtered water main only, generally paralleling the raw water transmission main, from the existing filtered water reservoir, for a distance of approximately 30,000 feet, as far as Donato's service station and passing the properties at which water is now being furnished from the raw water transmission line. From the filtered water reservoir for a distance of about 4,400 feet this filtered water main would be in Derry township. Costs of rights of way, service lines, and pumping equipment would be in addition thereto, but the record does not indicate the probable amount thereof. However, this \$89,-

800 alone would be about \$680 of additional investment for each of the 132 who are shown in the record as desiring to have water service and the 30,000 feet of main would be about 230 feet for each of them. The 4,400 feet of main in Derry township would be about 260 feet for each of the 17 in Derry township. The record does not contain an estimate of the probable resulting additional annual operating expenses or an estimate of the annual operating revenues to be anticipated from filtered water service along this extension of filtered water main.

There is nothing in the record indicating that there is any other means by which the water company could lawfully furnish water service to complainants and which would be more advantageous.

Outstanding in this record is the evidence of unlawful acts and wrongdoings by respondent in the past, with respect to unlawfully serving untreated Trout run water to the public, failure to comply with conditions of the department of health permit while operating under the approval granted thereby, false representation to the department of health by letter stating that consumer connections to the raw water line had been shut off, irregular dealings with complainant consumers, and a continued attitude of laxity toward its responsibility for rectification. The pertinence of this evidence, in this proceeding, lies in its relevance as historical background to present pertinent circumstances. Respondent is not now on trial before us for such past transgressions. Consequently, we will pass on, without further mention of these matters, to consider the particular complaint in this proceed-

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ing. Nevertheless, it is to be understood that by so doing it is not a condonation by the Commission of these past acts by respondent.

[1, 2] The weight of the evidence is clearly to the effect that the Latrobe Water Company owns and operates facilities for impounding, distributing and furnishing water for compensation to those of the public who receive water from the water company's transmission main between the Trout run reservoir and the filtration plant; even though some of the compensation may not have been collected and the water company has purposely refrained from collecting compensation since 1936, from which date pending actions and counteractions have continuously maintained status quo; for it is equally clear that the water company has not canceled this established business relationship with these users of the raw water by the mere failing or refusing to collect some of the compensation, while continuing the relationship in all other respects. We therefore find that the Latrobe Water Company is now in de facto "public utility" relationship with complainants and, in furnishing water to complainants under existing circumstances, is furnishing water "service" to complainants, in accordance with the meanings of "public utility" and of "service" as defined in the Public Utility Law and thus generally within the jurisdiction of the Commission.

[3] It is also evident and we so find that it is unlawful for the Latrobe Water Company to serve water from its Trout run source, which has not been subjected to filtration and chlorination, to the public, including

complainants and others, as respondent is now doing. Consequently, the Commission is without alternative to do otherwise than order respondent to forthwith cease and desist this serving of raw water from Trout run.

[4] The remaining issue, in this proceeding, for consideration is whether the Latrobe Water Company shall furnish water service by other and lawful means to residents along the company's raw water transmission main, between its Trout run reservoir and its filtration plant, in Derry, Unity, and Ligonier townships. Under the provisions of § 401 of the Public Utility Law, it is the duty of every public utility to furnish adequate, safe, and reasonable service for the accommodation, convenience, and safety of its patrons and the public within the scope of its established and perfected rights and corresponding obligations, generally, as a public utility. This issue in the instant case is confined to two controverted points, viz., whether it would be reasonable for the water company to furnish such service by lawful means and, if so, whether the water company has the general obligation to do so in Unity and Ligonier townships. Complainants, with respondent unlawfully consenting thereto, have had the use for a long time of water furnished by respondent and now they are faced with respondent's move to discontinue to furnish them with water and with much difficulty in otherwise obtaining water suitable for their use. The pleading for complainants, that it is therefore reasonable that respondent continue to furnish them with water, has a strong sympathetic appeal but it does not logically follow. The un-

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refuted evidence is that the necessary facilities to furnish filtered and chlorinated water to complainants from respondent's existing filtered water reservoir would cost in excess of \$90,000, which would be more than \$680 average cost, per consumer to be thus served, of the necessary additional facilities. This alone and disregarding additional resulting annual operating expenses, the amount of which the record does not disclose, is sufficient evidence that the cost of service to be thus furnished would not be reasonable; and there is nothing in the record to even indicate that there

might be a more advantageous means by which respondent could lawfully furnish service to complainants. It follows that it is not necessary for us to make a finding on the point regarding respondent's rights and obligations generally to furnish water service in Unity and Ligonier townships.

Complainants seek to have respondent continue to furnish water to them and others, but it is unlawful for respondent to furnish water to them as it has done and is now doing and it would be unreasonable that respondent otherwise lawfully furnish water to them.

NEW YORK SUPREME COURT, SPECIAL TERM, ALBANY COUNTY

People ex. rel. Public Service Commission

v.

New York Telephone Company

(174 Misc 517, 21 NY Supp(2d) 405.)

Appeal and review, § 14 — Collateral attack — Commission rate order.

1. The reasonableness of tariffs filed by a telephone company for hotel telephone service is a question within the jurisdiction of the Commission and cannot be attacked as a defense in a proceeding by the Commission to secure an order requiring the company to suspend service to hotels refusing to conform with the charge, p. 184.

Rates, § 7 — Jurisdiction of court — Enforcement of tariffs — Question of Commission jurisdiction.

2. Whether a Commission has jurisdiction to regulate the rates to be charged by a hotel to its guests for telephone service and whether it has jurisdiction to direct a telephone company to constitute the hotel its agent in furnishing and charging for telephone service and, by the acceptance of the service, to require the hotel to accept the status of agent for the utility, are questions which are judicial in nature and not wholly legis-

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lative and regulatory; and upon those questions the parties directly to be affected should have opportunity to be heard by a court in advance of the enforcement of the tariffs, p. 185.

Parties, § 14 — Proper parties — Hotels — Enforcement of telephone tariffs.

3. Hotels have a sufficient interest in the subject matter to be heard in a proceeding by the Commission to secure an order requiring a telephone company to suspend service to hotels which refuse to conform with tariff schedules ordered by the Commission, p. 185.

[July 11, 1940.]

PROCEEDING by Commission to secure order requiring telephone company to suspend service to hotels which refuse to conform with tariff schedules ordered by Commission; motion by telephone company to add hotels as parties granted and motion by Commission addressed to answer and for summary relief denied without prejudice.

APPEARANCES: Gay H. Brown, of Albany (Laurence J. Olmsted, of Syracuse, John T. Ryan, of Cortland, and Sherman C. Ward, of Albany, of counsel), for petitioner; Charles T. Russell, of New York city (Edward L. Blackman, Ralph W. Brown, and Edward F. Snyder, all of New York city, of counsel), for New York Telephone Co.; Campbell & Boland, of New York city (Charles J. Campbell, of New York city, of counsel), amicus curiae for New York State Hotel Ass'n.

BERGAN, J.: The Public Service Commission has made an order fixing rates that hotels may charge their guests for local and long-distance telephone service, and directing the New York Telephone Company to file tariff schedules which conform with the order. The tariff schedules as directed to be filed constitute the hotels the agents of the telephone company in rendering such telephone service to their guests. The tariff schedules have been filed. The telephone com-

pany has not reviewed the order of the Commission.

Certain hotels have refused to conform with the tariff schedules. The Commission has instituted this proceeding in pursuance of Public Service Law, § 103, for the summary relief against the telephone company therein provided. The petition seeks an order in the nature of mandamus requiring the telephone company to suspend the telephone service of the noncomplying hotels and an injunction restraining the company from furnishing service to such hotels. Both forms of relief are available to the Commission under Public Service Law, § 103.

The telephone company moves to bring into the proceeding as parties the hotels that have refused to conform with the tariff schedules on the ground their rights are affected by the proceeding and that they are the true parties in interest. The petitioner resists this motion and in turn moves for the relief sought in the petition.

[1] The reasonableness of the tar-

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iffs filed by the defendant is a question within the jurisdiction of the petitioner. It cannot be attacked as a defense to this proceeding either by the respondent, or, if they were parties to the proceeding, by the hotels which are the subscribers of the respondent. *Pennsylvania R. Co. v. Puritan Coal Mining Co.* (1915) 237 US 121, 131, 59 L ed 867, 35 S Ct 484; *Leitner v. New York Teleph. Co.* (1938) 277 NY 180, 189, 24 PUR(NS) 289, 13 NE(2d) 763; *Metzger v. New York State R. Co.* 168 App Div 187, PUR1915F 727, 154 NY Supp 789; *Murray v. New York Teleph. Co.* (1915) 170 App Div 17, 25, 156 NY Supp 151.

Accordingly the arguments addressed to the reasonableness of the tariffs by the New York State Hotel Association as *amicus curiae* are arguments that must be made to the petitioner in the pending proceeding or directly in such other application to the petitioner as the hotels may be advised.

[2] But whether the petitioner has jurisdiction to regulate the rate to be charged by a hotel to its guests for telephone service and whether it has jurisdiction to direct the respondent to constitute the hotel its agent in furnishing and charging for telephone service and by the acceptance of the service to require the hotel to accept the status of agent for the utility, are questions which are judicial in nature and not wholly legislative and regulatory. Upon those questions the parties directly to be affected should have opportunity to be heard by a court in advance of the enforcement of the tariffs.

The hotels undoubtedly could re-

view the power of the petitioner to make its order in any proceeding before the Commission in which they were parties. The difficulty is, however, that they are confronted with immediate enforcement of the tariffs without opportunity for judicial adjudication as to them of the power of the Commission to make its order.

[3] Therefore, since the order here sought would invoke the power of judicial compulsion against the respondent and would in turn affect the rights of the hotels in the transaction of their business, the hotels have a sufficient interest in the subject matter to be heard in this proceeding. Their interest in the subject matter is not general or academic. It is specific and direct. The determination affects their business and involves the important question of the extent to which petitioner may make an order regulating an aspect of that business. Therefore, authorities such as *Consolidated Gas Co. v. Newton* (1919) 256 Fed 238, and *Morrell v. Brooklyn Borough Gas Co.* (1921) 231 NY 405, 132 NE 130, do not apply. In the *Morrell Case*, *supra*, 231 NY at p. 408, it was pointed out that the intervenor had no "rights, property, or duties" involved, and that the rate did not affect the intervenor as a consumer.

If the question of law remains open for judicial determination whether the rates or rules promulgated by a utility are applied or executed in an unreasonable, discriminatory, or prejudicial manner (*Leitner v. New York Teleph. Co. supra*) it would follow that the question of law involving jurisdiction to make a rule or tariff remains open for judicial determination

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and that the question may be raised in resistance to enforcement in a proceeding in the nature of mandamus. Questions of this kind were not presented in *Public Service Commission v. New York C. R. Co.* (1937) 249 App Div 869, 18 PUR(NS) 525, 293 NY Supp 88, in *Public Service Commission v. Long Island R. Co.* (1937) 249 App Div 895, 293 NY Supp 90, or in *Purcell v. New York C. R. Co.* (1935) 268 NY 164, 10 PUR(NS) 400, 197 NE 182.

It may very well be that upon the merits the conclusion reached in *Wisconsin in Hotel Pfister v. Wisconsin Teleph. Co.* (1930) 203 Wis 20, PUR1931A 489, 233 NW 617, 73 ALR 1190, will be reached here. It is reasonable to suppose that the jurisdiction of the petitioner extends to the regulation of rates for telephone service furnished by a public utility by whatever agency such service is rendered, and in addition to require that some relationship of agency by a subscriber in turn furnishing service to others be imposed in the execution of that part of the service which is essentially public in character.

But this is quite a different thing from saying that one affected by such a regulation may not be heard by the court to assert a contrary view of the law. The controversy thus considered is not the reasonableness of the exercise of the rate-making function; it is the power to exercise the function in respect of the service given by hotels to their patrons.

The court is required by the statute (*Public Service Law*, § 103) to determine the appropriate relief to be granted. In some circumstances it may

be withheld. *Public Service Commission v. Interborough Rapid Transit Co.* (1916) 219 NY 355, PUR 1917B 323, 114 NE 387. The statute itself expressly authorizes the court to join such other parties as it "shall deem necessary or proper" to make the order or judgment effective. But aside from this, the power to add such parties as may be affected by the result of either an order in the nature of mandamus or a judgment of injunction is inherent. In a proceeding under a similar statute where legal defenses were raised it was said in *Public Service Commission v. Richmond Light & R. Co.* (1917) 108 Misc 724, 729, 163 NY Supp 64, 68: "The writ [of mandamus] should not issue where it is apparent that parties not before the court may have rights affected by its issuance upon which they are entitled to hearing." This was affirmed by the appellate division ([1919] 188 App Div 970, 176 NY Supp 918) on the opinion of Kelly, J., at Special Term. See, also, *People ex rel. Hasbrouck v. Board of Supervisors of Dutchess County* (1892) 135 NY 522, 528, 32 NE 242; *Re Hilton Bridge Construction Co.* (1896) 13 App Div 24, 43 NY Supp 99; *Cooper v. Paris* (1911) 73 Misc 244, 255, 130 NY Supp 1043; *Fiero Particular Actions and Proceedings* (Vol. 2, p. 1956, 4th Ed.); *Wait's Practice* (Vol. 6, p. 619, 4th Ed.). The adjudication in any event would not be binding on the hotels in their absence from the proceeding. *People ex rel. Andrews v. McGuire* (1891) 126 NY 419, 422, 27 NE 967. Further litigation until the question is settled seems inevitable.

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As this controversy over the boundaries of the petitioner's jurisdiction must eventually be adjudicated between the petitioner and the hotels, it may well be done in this proceeding for coercive action in which the hotels have a direct interest as distinguished from the more or less nominal interest of defendant. Defendant, quite understandably, seeks to have the controversy adjudicated between the real parties to it rather than itself to carry on litigation with its subscribers which may be protracted and expensive.

I conclude that sufficient has been shown to establish a debatable legal question in respect of petitioner's power to make the tariff and a substantial interest in the absent parties in

the adjudication of that question. Defendant's motion to add the enumerated parties granted. While this may seem to add to petitioner's burden of enforcement of its tariffs, a binding adjudication as to even one of such parties ought to put the controversy at rest and settle the question of law as to the others.

Motion by petitioner addressed to the answer of the respondent and for the summary relief sought denied without prejudice to its renewal upon the joinder of issue by the added parties or by such of them as against which petitioner elects to proceed.

No costs. Submit order.

Papers and memoranda used in the proceeding may be obtained at this office.

UNITED STATES CIRCUIT COURT OF APPEALS, NINTH CIRCUIT

Montana Power Company
v.
Federal Power Commission

[No. 9322.]

(112 F(2d) 371.)

Water, § 20.2 — Licensed power projects — Construction included — Transmission lines.

1. The Federal Power Commission's order denying an application for a license to construct an electric power transmission line and finding that the line would serve principally as a primary line transmitting energy from the plant operated by the applicant as a federally licensed power project to points of junction with the distribution system of the applicant at other points, was not based on a mistake of law in holding that the project could include the line in question, p. 191.

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Appeal and review, § 28.1 — Scope of review — Decision of Federal Commission.

2. The judicial function on review of an order of the Federal Power Commission is exhausted when there is found to be a rational basis for the conclusions approved by an administrative body, p. 192.

Appeal and review, § 28.1 — Scope of review — Findings by Federal Power Commission — Transmission lines.

3. The court, in reviewing an order of the Federal Power Commission denying a power company's application for a license to construct a transmission line, cannot say that the Commission's conclusions that the line will serve principally as a primary line transmitting energy from the applicant's plant, operated as a licensed project, to points of junction with the distribution system of the applicant at various points that it could not carry any substantial amount of power from other sources to such systems when carrying the maximum energy generated at the applicant's plant, and that it is a part of the project, were without any rational basis, p. 192.

Constitutional law, § 2 — When question may be raised — Due process — Denial of license.

4. A power company cannot raise the question whether the Federal Power Commission's order denying its application for a license to construct a transmission line as a part of a complete project deprived the applicant of its property without due process of law because the United States may acquire the line in question at the end of the license period by paying the applicant its net investment and reasonable damage to its property, where the United States has not taken or threatened to take and cannot for about fifty years take the line in question, p. 192.

[May 20, 1940. Rehearing denied June 14, 1940.]

PETITION to review order of Federal Power Commission denying application for license to construct electric transmission line; order affirmed.

APPEARANCES: W. H. Hoover and J. E. Corette, Jr., both of Butte, Mont., and A. J. G. Priest and Sidman I. Barber, both of New York city (Reid & Priest, of New York city, and Corette & Corette, of Butte, Mont., of counsel), for petitioner; David W. Robinson, Jr., Gen. Counsel, Willard W. Gatchell, Wallace H. Walker, Louis W. McKernan, William B. Spohn, and William J. Costello, Counsel, Federal Power Commission, all of Washington, D. C., for respondent.

Before Garrecht, Haney, and Healy, Circuit Judges.

35 PUR(NS)

HANEY, C. J.: We are asked to review an order of the Federal Power Commission denying petitioner's application for a license to construct an electric power transmission line.

Missoula, Montana, is about 70 miles northwest of Anaconda, Montana. The Flathead power project is about 50 miles north and slightly west of Missoula. The Thompson Falls, Montana, power project is about 45 miles west of the Flathead project. Petitioner has power facilities at and near Anaconda for serving Anaconda and points easterly and northeasterly therefrom. It has power facilities

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ties at Missoula to serve Missoula and points south. It has power facilities at Flathead which it operates under a license from the Commission as Project No. 5. It also has power facilities at Thompson Falls. Petitioner owns no transmission line connecting these points, but has the right to use a line belonging to a railroad upon certain conditions, which line connects some of the points.

On November 20, 1936, petitioner filed an application for a license to construct a transmission line as follows: a line 56 miles long beginning at Thompson Falls and terminating at the Flathead project; and a line 145 miles long, beginning at the Flathead project, through Missoula and terminating at Anaconda, thus connecting all the points mentioned. In accordance with that plan the line was thereafter constructed. A line of about 1,500 feet in length connects the line in question with the Flathead project.

The Commission found:

"(1) The line will serve principally as a primary line transmitting energy from the aforesaid Flathead plant to points of junction with the distribution system of the applicant at Thompson Falls, Missoula, and Anaconda, Montana, in addition to serving as an interconnection between those distribution systems;

"(2) When carrying the maximum energy that can be generated at the Flathead plant, after that project has been completed and is operating at its ultimate installed capacity, the transmission line cannot carry any substantial amount of power from other sources either to the aforesaid distribution system at Thompson Falls or

to the distribution systems at Missoula or Anaconda;

"(3) The line is properly, therefore, a part of the Flathead project within the meaning of § 3(11) of the Federal Power Act [16 USCA § 796 (11)] as a necessary adjunct to that complete unit of development";

It is *ordered* that the application "for the license for the line as a minor part only of a complete project be and it hereby is denied" and further ordered that upon submission of certain revised and additional exhibits, the license for Project No. 5 would be amended to include the line therein. Application for rehearing was made and denied. Petitioner thereupon filed this petition to review the order.

The only two acts pertinent here are the Act of June 10, 1920, Chap. 285, 41 Stat. 1063, and the Act of August 26, 1935, Chap. 687, 49 Stat. 803, 838.¹ By § 30 of the first mentioned act, such act was designated as "The Federal Water Power Act," 16 USCA § 791 et seq. The second mentioned act was designated as the "Public Utility Act of 1935" and consisted of two titles, the first of which was designated as the "Public Utility Holding Company Act of 1935," 16 USCA § 79 et seq., and is not here pertinent. (§ 33.) Title II of the Public Utility Act of 1935, 16 USCA § 791a et seq., amended the Federal Water Power Act, and by § 212, 49 Stat. 847, provided that §§ 1 to 29, inclusive, of what had been called the

¹ Amendments made by the Act of March 3, 1921, Chap. 129, 41 Stat. 1353, 16 USCA § 797, and the Act of June 23, 1930, Chap. 572, 46 Stat. 797, 16 USCA §§ 792, 793, 797, are not pertinent here.

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Federal Water Power Act, should constitute Part I of that act, the title to which was abandoned by repeal of § 30 of what had been called the Federal Water Power Act. Title II of the Public Utility Act of 1935, also amended, by § 213 thereof, what had been called the Federal Water Power Act, by adding thereto two parts, the last of which contained (in the last section thereof, § 320) the short title for what had been called The Federal Water Power Act as amended, including the amendments made by the Public Utility Act of 1935. Such short title was and is the "Federal Power Act" and the title "The Federal Water Power Act" is no longer the correct title of the act.

Section 3 of the Federal Power Act, 16 USCA, § 796, provides in part:

"That the words defined in this section shall have the following meanings for the purposes of this act [chapter], to wit: . . .

"(11) 'project' means complete unit of improvement or development, consisting of . . . the primary line or lines transmitting power therefrom to the point of junction with the distribution system or with the interconnected primary transmission system.

"(12) 'project works' means the physical structures of a project.

Section 4 of the act provides in part:

"That the Commission is hereby authorized and empowered— . . .

"(e) To issue licenses to citizens

of the United States . . . or to any corporation organized under the laws of the United States or any state thereof . . . for the purpose of constructing, operating, and maintaining . . . transmission lines.

Section 10 of the act, 16 USCA § 803, provides in part:

"That all licenses issued under this part⁴ shall be on the following conditions: . . .

"(a) That the project adopted, including the maps, plans, and specifications, shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, and for other beneficial public uses, including recreational purposes; and if necessary in order to secure such plan the Commission shall have authority to require the modification of any project and of the plans and specifications of the project works before approval.

"(g) Such further [other] conditions not inconsistent with the provisions of this act [chapter] as the Commission may require. . . .

"(i) In issuing licenses for a minor part only of a complete project . . . the Commission may in its discretion waive such conditions, provisions, and requirements of this part⁵ [chapter], except the license period of fifty years, as it may deem to be to

³ The 1920 act contains the identical words.

⁴ Section 4(d) of the 1920 act contains the identical words.

⁵ This word was "act" in the 1920 act.

⁵ This subdivision changed the language of § 10(a) of the 1920 act.

⁶ This word was "act" in the 1920 act.

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the public interest to waive under the circumstances. . . ."⁷

Provision for review of the orders of the Commission is found in § 313 (b) of the act, 16 USCA § 825l.⁸

[1] Petitioner contends that the Commission based its order on a mistake of law in holding that the Flathead project could include the line in question. It is said that the line in question is an interconnected primary transmission system; that the definition of "project" by § 3(11) of the Federal Power Act limits the Flathead project to the place of connection with the line in question by the line 1,500 feet long; that therefore, the Commission has decided that a project may consist of more than "to the point of junction with the distribution system or with the interconnected primary transmission system." This contention is not borne out by the action of the Commission because the Commission did not misconstrue the definition given in § 3(11), *supra*. The Commission found that the line in question "will serve principally as a primary line transmitting energy from the aforesaid Flathead plant to points of junction with the distribution systems of the applicant at Thompson Falls, Missoula, and Anaconda, Montana." If the line in question is actually such a "primary line" then in accordance with the definition in § 3(11), the line is a part of the Flathead project.

It can be seen, therefore, that actually the question to be decided is whether the Commission's findings are "supported by substantial evi-

dence" because if so, they are "conclusive" here. Federal Power Act, § 313(b), *supra*. In this connection, petitioner contends that there is no evidence in the record to support the findings. The evidence disclosed that the Flathead plant is not yet completed by the installation of another generating unit; that when and if installed, the ultimate power capacity of the Flathead plant will be such that when such power is moving toward Thompson Falls, there would be no substantial excess of capacity for carrying power from any other source over the line from the Flathead project to Thompson Falls; that when the Flathead plant is completed, as stated, and all the power therefrom is moving to Anaconda, there would be no substantial excess of capacity for carrying power from any other source over the line from the Flathead project to Anaconda.

While petitioner does not dispute these statements, it contends that they are not facts but assumptions and speculation because there is now no way of knowing: whether another unit will be installed at the Flathead plant; whether, when installed, its capacity will be taken; what the power demand will be; what water supply will be available to run petitioner's generating plants; what direction the Flathead power will be transmitted, and other like reasons. We believe petitioner's contention cannot be sustained. The evidence supports the findings of the Commission. Whether the facts disclosed in these findings will occur, of course, is a question

⁷ Section 10 of the 1920 act was identical except as stated in notes 4 and 5.

⁸ No similar provision is found in the 1920 act.

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only determinable by judgment as to the future.

[2, 3] The Commission is required to exercise its judgment, as provided in § 10 (a) of the act, *supra*. The license to be issued is subject to the condition that "the project adopted . . . shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan . . . for the improvement and utilization of water-power development. . . ." The act leaves to the discretion of the Commission what project shall "be best adapted to a comprehensive plan" for such improvement and utilization. "The judicial function is exhausted when there is found to be a rational basis for the conclusions approved by the administrative body." *Rochester Teleph. Corp. v. United States* (1939) 307 US 125, 146, 83 L ed 1147, 28 PUR(NS) 78, 91, 59 S Ct 754, 765, and cases there cited. A rational basis for the Commission's conclusions might be the low cost of Flathead power. From experience the Commission may know, or be perfectly sure, that power generated at the government project at Flathead will be sold at a cost so low that the entire output thereof will be constantly in demand. If so, it can be seen that the line in question will be used for

the transmission of that power. At any rate, we cannot say that there is no rational basis for the conclusions of the Commission.

[4] Finally, it is contended that the order of the Commission operates to deprive petitioner of its property without due process of law, because by § 14 of the act, the United States has the right to acquire the line in question at the end of the license period, by paying petitioner its net investment and reasonable damage, if any, to petitioner's property. On the other hand, if the line in question is not a part of the Flathead project, then to acquire it, the United States would be compelled to pay the fair operating value of the line.

The United States has not taken, has not threatened to take, and cannot for about fifty years, take the line in question. Under these circumstances, we think petitioner has no standing to raise the question. *New Jersey v. Sargent* (1926) 269 US 328, 339, 70 L ed 289, 46 S Ct 122; *United States v. West Virginia* (1935) 295 US 463, 474, 79 L ed 1546, 55 S Ct 789. Petitioner makes no contention that the Commission's conduct of the hearing deprived it of due process of law.

Affirmed.



"Operator..get me Springfield"

How long do you hesitate before calling an important customer or prospect by telephone?

Do you let the fact that it might cost a quarter—or even a dollar—keep you from making a personal contact?

Then why "economize" on the paper that carries equally personal, often far more important messages, to that same individual—especially when a cost analysis of your own dictated letters would show that paper represents less than a twentieth of the total cost of the letter?

Weston's DEFIANCE BOND is a conspicuously fine paper. Made 100 percent of new, white cotton clippings, it is scrupulously clean, sparkling white, highly opaque—in short, a perfect and practical background for any message.

Ask your letterhead supplier to show you how your own letterhead will look on Weston's DEFIANCE BOND—or write for a portfolio of specimen letterheads.

IS PAPER YOUR RESPONSIBILITY?

You'll profit by the ideas and technical information in the publication, *Weston's Papers*. Issued regularly for the benefit of paper buyers. For copies, Write **BYRON WESTON CO., DALTON, MASS.** Dept. C



Industrial Progress

Selected information about manufacturers, new products, and new methods. Also news on utility expansion programs, personnel changes, recent and coming events.



Aluminum Co. Plans to Spend \$150,000,000 on Expansion

PRESIDENT Roy A. Hunt announced recently that the Aluminum Co. of America had allocated more than \$150,000,000 for expansion to meet defense requirements.

Mr. Hunt stated that the increased facilities would boost aluminum production from 325,000,000 pounds in 1939 to 700,000,000 pounds in 1942.

The Aluminum Co. of America, declared Mr. Hunt, is expanding much more rapidly for defense purposes that it would for normal growth and will do its own financing. He said it was the plan of the company to build permanent buildings and install up-to-date equipment which could be used to whatever extent the market may require it after the present emergency had passed.

The Defense Commission announced the company would add new units in Tennessee and Washington and planned a hydro-electric project at Fontana, N. C.

Mr. Hunt said that in addition to these, the company is building two substantial hydro-electric projects at Glenville and Nantahala, N. C., together with smelting plants utilizing power from these developments.

Also being built or planned, he said, are new fabricating facilities at the company's plants at Alco, Tenn., Lafayette, Ind., Los Angeles, New Kensington, Pa., Detroit, Cleveland, Edgewater, N. J., and Masena, N. Y.

These additional fabricating facilities will increase the company's output of castings, sheet, tubes, screw machine products, extruded and rolled shapes, rods and bars and forgings.

Remington Rand Announces Model Safe-Kardex "60"

CULMINATING 23 years of constant research, development and improvement since the introduction of the original visible record device in 1917, Remington Rand has announced the Floor Model Safe-Kardex "60."

Insulation, certified to protect the record

contents of the unit for a full hour in the face of heat ranging up to 1700 deg. F., is incorporated as an integral part of the floor model unit itself. The trend to "streamlining" in modern offices is greatly responsible, according to the manufacturer, for the low height of this unit. It adjusts itself perfectly to any surroundings and is no higher than the usual office desk.

In operation, the Floor Model Safe-Kardex "60" is an inverted Kardex cabinet on wheels, with full portability to the executive's desk for analysis or review of as many as 1254 records at a single time. The individual Kardex slides are ejected by a slight pull. When they are fully extended they drop into a flat, horizontal convenient posting or reference position. Among the advantages of this arrangement are rapidity and convenience of operation, a saving of floor space, and an unusually attractive appearance whether the units are used singly or in battery formation.

Ashcroft Modernizes Trade Mark

ASHCROFT, makers of quality pressure gauges since 1850, announce a new trade mark to appear on all Ashcroft Gauges in the future. The shield outline, so familiar to Ashcroft Gauge users is retained. However, the date (1850) when Ashcroft made the first gauges in this country, is now shown on the shield, together with the letters "U.S.A." The name "Ashcroft" in white across the center makes it a most prominent trade mark.

In announcing their new trade mark, Ashcroft call attention to the complete Gauge catalog which will be furnished to anyone interested in writing the Ashcroft Gauge Division, Manning, Maxwell & Moore, Inc., Bridgeport, Connecticut.

Allis-Chalmers Announces New Electrifiugal Pump

ALLIS-CHALMERS Mfg. Company, Milwaukee, Wisconsin announces its new "Electrifiugal" pump which is an all-in-one centrifugal pump especially designed as a complete pump and motor unit on one shaft and one housing. Instead of using standard motors having special end housings and shaft extensions, the "Electrifiugal" pumping unit has a special motor with a one piece cast iron motor yoke and pump bracket. The feet are cast integral with the housing and bracket and extend under the entire unit instead of under the motor only.

MARTENS & STORMOEN

successors to

THONER & MARTENS

Disconnecting Switches

Heavy Duty Switches

15 Hathaway St.,

Boston, Mass.

Mention the FORTNIGHTLY—It identifies your inquiry

**DODGE JOB-RATED
TRUCKS FIT OVER 97%
OF ALL HAULING NEEDS**



TON TRUCKS—Panel Illustrated



TON TRUCKS—Express Illustrated



TON TRUCKS—Panel Illustrated



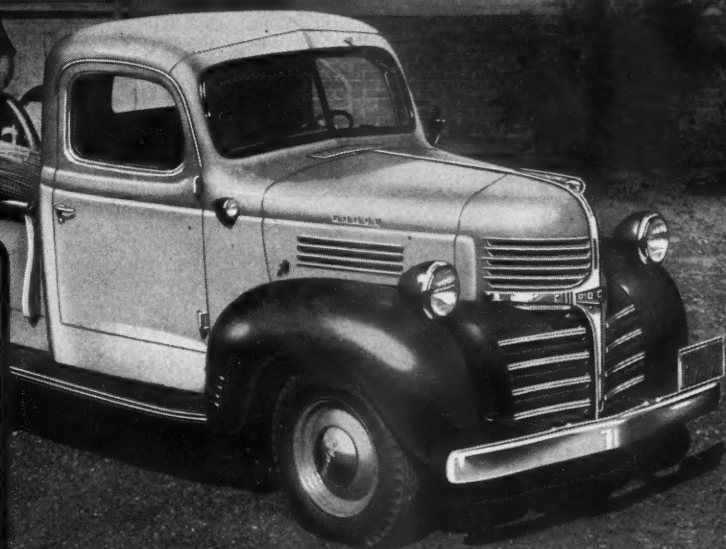
**TON TRUCKS—Conventional and
Cab-Over-Engine Models**



**TON TRUCKS—Conventional and
Cab-Over-Engine Models**



**TON TRUCKS—Gasoline or Diesel
Powered**



NEW 1941 DODGE *Job-Rated* TRUCKS

They've Got What It Takes to Cut Your Hauling Costs

• Of course you're interested when we say, "Here are trucks that will lop off dollars of expense for you." But you'll want to know *why . . . and how!*

Well—first of all—they're "Job-Rated." Each is powered with the *right one* of six great truck engines, including the heavy-duty Diesel; each is engineered and "sized" throughout for top

performance, *maximum economy.*

The rest of the answer is something that Dodge has been doing now for over a quarter of a century . . . *building dependable QUALITY motor transportation.*

Ask your Dodge dealer to tell you the whole *money-saving* story of Dodge *Job-Rated* trucks, and to show you the *right* truck to save money on *YOUR* job!

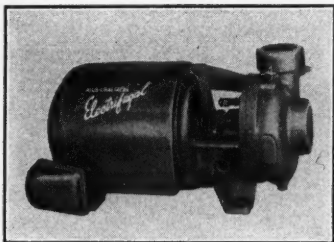
DODGE DIVISION, CHRYSLER CORPORATION, DETROIT, MICHIGAN

DEPEND ON DODGE
Job-Rated* **TRUCKS

SEE YOUR
Dodge Dealer
FOR A
**GOOD
DEAL**

The special motor design, with copper bearing steel cover, meets NEMA specifications for splash proof motors. Totally enclosed, fan cooled motors and explosion proof motors are also available in the "Electrifugal" type.

In splash proof construction the "Electrifugal" pump is now available in sizes from 1 hp



to 10 hp inclusive at 3500 rpm and from $\frac{3}{4}$ hp to $7\frac{1}{2}$ hp inclusive at 1750 rpm for heads up to 160 feet. Larger sizes of this type are in the process of design.

For normal service the pump is built with cast iron casing, bronze fitted. It can, however, be made all iron, all bronze, all stainless steel, or of other special metals to suit any industry. In the chemical industry the sheet metal motor cover can be made of stainless steel to provide the longest possible complete unit life on any particular installation. Bulletin B-6040 available on request.

Payroll Calculator Eliminates Problem of Figuring Payrolls

To relieve the employer of the burden of computing payrolls in accordance with the 40-hour provision of the Wage-Hour law, Acme Visible Records, Inc. of Chicago has perfected a Payroll Calculator that eliminates all figuring with its chance for error and all machine work with its need for verification. Utilizing all the time-tested advantages of visible records, the Acme Calculator reveals at a glance the total amount due any wage earner in regular pay and in overtime pay based on the requirement of time-and-a-half for all hours worked over forty in any week.

The Acme Pay Calculator is a compact, visible card record book which may be placed within easy eye-range of the clerk while in service and slipped into any desk drawer when

not in use. It contains 261 individual wage rate tables covering every period of service from $\frac{1}{4}$ hour to 60 hours. The wage rates from 30¢ to \$1.50 are in $\frac{1}{2}$ ¢ steps and those from \$1.50 to \$2, in $2\frac{1}{2}$ ¢ steps. Wages are shown for $\frac{1}{4}$, $\frac{1}{2}$, and full hour periods.

The entire system has been designed for clarity, speed and accuracy. The rate indexes are all visible, and the type is clear, clean and easy to read. Carefully planned rules and two-color printing (black and green) facilitate reading and avoid confusion. The cards turn on metal hinges which eliminate wear and their visible margins have a transparent protective covering.

Ohio Fuel Gas Co. Building \$330,000 Compressor Plant

THE Ohio Fuel Gas Co., Columbus, Ohio, will complete, about November 15th, a \$330,000 compressor station near Mount Sterling, Ohio, according to F. E. Kidwell, local manager of the company.

The steel building will be 76 x 79 ft., according to D. R. Croft, general superintendent of the compressor division, and the station will have one 1350- and two 675-hp. units.

New Turbo-Generators Ordered by New England Utilities

IMPORTANT additional steps toward keeping well ahead of the national defense program in relation to power facilities have been announced by Frank D. Comerford, president, Boston Edison Co., and chairman of the New England Power Association.

Mr. Comerford revealed that the Boston company, which increased its generating capacity by 65,000 kw. in 1939 through the installation of new equipment at its L Street and Edgar stations, has placed orders with the General Electric Co. for two additional steam turbo-generators aggregating 58,000 kw. and for two Combustion Engineering boilers rated at 500,000 and 400,000 lb. per hour scheduling delivery for the spring of 1942. One turbine will be rated at 40,000 kw. and the other at 18,000 kw. and both will be topping units designed to operate at 1,200 lb. per sq. in. The boilers will deliver steam at 1,400 lb. and 910 and 914 deg.

Construction has been speeded up on the installation of the 40,000-kw. turbine unit and boiler facilities at Providence, R. I., for the Narragansett Electric Co., a part of the New England Power Association system, and this unit is expected to be in operation early in 1941.

These new generating units, with the necessary switching equipment and transmission lines, will represent an outlay by Boston Edison Co., of approximately \$8,000,000 in the next 24 months.

The Narragansett company's construction program now nearing completion represents an expenditure of about \$5,000,000. The

DICKE TOOL CO., Inc.

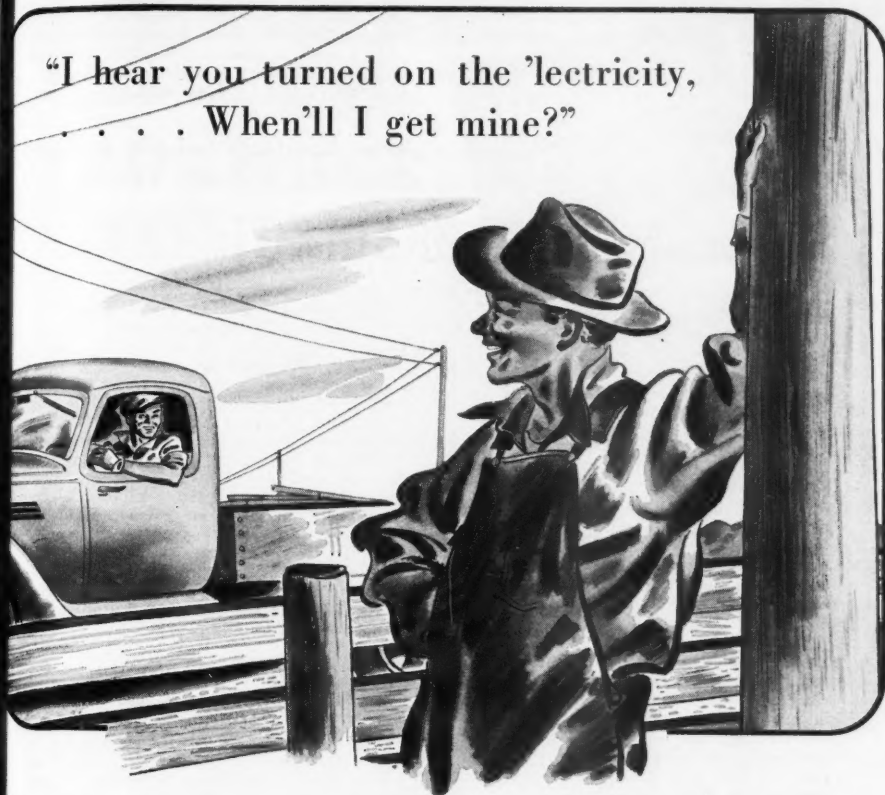
DOWNERS GROVE, ILL.

Manufacturers of

Pole Line Construction Tools

They're Built for Hard Work

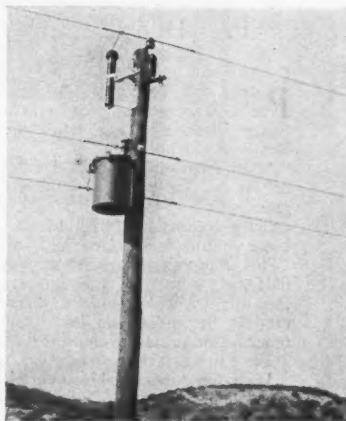
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Promise a fellow power and he'll be on your tail 'til he gets it. Make certain he can fully enjoy the benefits of electricity by building lines with ample conductivity—A.C.S.R. lines.

These conductors provide high conductivity, allowing for future growth of load. And A.C.S.R. lines will give you the finest of service, staying on the job with plenty of odds against them. This has been proved on thousands of miles of line, for more than a quarter of a century.

A.C.S.R. has high strength, permitting long span, low cost construction. It is highly resistant to corrosion. Build with A.C.S.R. conductors, according to A.C.S.R. standards, and you'll be money ahead. ALUMINUM COMPANY OF AMERICA, 2134 Gulf Building, Pittsburgh, Pa.



A • C • S • R
Aluminum Cable Steel Reinforced

FOR RURAL LINES AND POWER TRANSMISSION

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earlier expenditures by Boston Edison which brought about the 1939 additions were in the vicinity of \$7,000,000. Thus approximately \$20,000,000 will have been expended by these two major New England utility systems for increases in generating capacity within a few years.

Weston Co. Booklet Features Paper News, Ideas, Information

OF special interest to buyers and users of high grade papers, is the publication "Weston's Papers" issued regularly by Byron Weston Company, Dalton, Massachusetts. Designed to transmit timely news, helpful technical information and practical suggestions to all who share a common interest in the subject of fine paper, this lively little publication should prove of particular value to buyers of paper such as purchasing officials of public utilities, banks, insurance companies and business institutions.

The contents of the current issue indicate the type and range of subject matter to be found in "Weston's Papers". Typical articles discuss the need for special qualities in paper used in mechanical accounting machines; the practical, dollars-and-cents value of using a high grade paper for letterheads; how office forms can be improved in appearance and made easier to use by the application of modern ideas of style in ruling.

Regular features include a graphic presentation in pictures and story of the art of paper making, a department devoted to questions and answers on technical problems relating to the selection or use of paper and a section reserved for a brief outline of the history and policies of the many trade associations that strive for the advancement of the Graphic Arts.

1941 Dodge Truck Prices Announced

PRICES of 1941 Dodge Job-Rated truck models were announced recently by Lee D. Cosart, sales manager, truck division, Dodge Brothers Corporation.

"Although the new Dodge truck line embodies a host of vital improvements in engines, chassis, cabs and bodies, prices remain strictly competitive with other trucks in the large volume, low priced field, said Mr. Cosart. "This competitive pricing applies not only to half-ton commercial units but straight through the line of 112 standard chassis and body models, the most complete line of Job-Rated trucks Dodge has ever produced."

Base prices are as follows:

Half-ton capacity, 116-inch wheelbase chassis, \$500.00; ¾-ton, 120-inch wheelbase chassis, \$570.00; 1-ton, 120-inch wheelbase chassis, \$635.00; 1½-ton, 135-5/16-inch wheelbase chassis, \$645.00; 1½-ton cab-over-engine, 105-inch wheelbase chassis, \$750.00; 2-ton, 136-inch wheelbase chassis, \$995.00; 2-ton cab-over-en-

gine, 105-inch wheelbase chassis, \$1110.00; 3-ton gasoline powered 152-inch wheelbase chassis, \$1970.00; 3-ton Diesel powered 152-inch wheelbase chassis, \$3170.00. The foregoing are delivered at Detroit prices, and include Federal tax, local or state taxes (if any) are to be added.

Eye Accidents Subject of Talks Released by Amer. Optical Co.

TO help decrease industrial eye accidents which annually cost \$50,000,000, according to Louis Resnick of the National Society for the Prevention of Blindness, the American Optical Company, Southbridge, Mass., has just published an interesting and dramatic illustrated talk on the cost and causes of eye accidents with suggestions included to eliminate the causes and lower the costs.

The talk is supported by a series of significant charts and has been prepared for delivery before safety engineers, management executives, and people or organizations interested in the safety movement. Copies of the talk can be borrowed from the optical concern which will be glad to supply a speaker to present it, if one is desired. Easily delivered in thirty minutes or less, the talk is free of advertising material.

The theme of the message is—"Eyes Are Expensive Targets"—and the point is amply proved by factual matter and statistics included in the talk and charts.

Equipment Literature

Steel Flooring, Grating & Treads

W. M. F. Klemp Company, 6601 South Melvina Avenue, Chicago, Illinois, has recently published a new catalog, which describes Diamond Grating, Steel Stair Treads, Hexteel Heavy Duty Surface Armor, and Klemp-Acme Floorsteel, with tables of safe loads, and information on assembly and recommended fillers.

This catalog is completely illustrated with photographs and diagrams showing the various services and methods of using Klemp products and fits into regular file drawers having a handy tab for quick reference.

A copy may be obtained by writing to the manufacturer direct.

Switches

THE Automatic Switch Company, 41 East 11th St., New York City, have issued a circular containing a brief description of each of their standard switches, and showing some of the many types they have built for services other than standard.

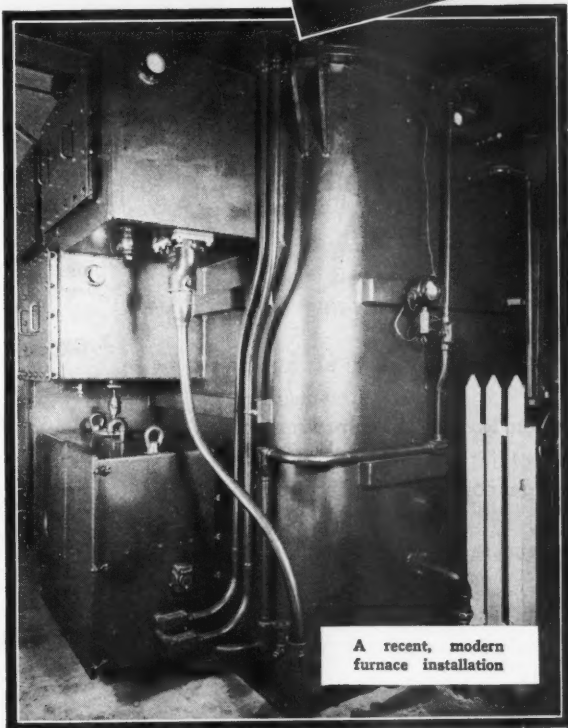
Separate catalog sections are available on each of the standard types of switches described in this circular. These contain detailed information on each type—application, capacities, construction, and operation—including dimensions and weights.

Copies of the circular and/or any of the particular sections will be sent on request.

Mention the FORTNIGHTLY—It identifies your inquiry

Pennsylvania FURNACE TRANSFORMERS

*The choice
of heavy
industries*



A recent, modern
furnace installation

SOME reasons for their preference: • Designed and built under one roof by a specialized organization • Ample production facilities for the largest sizes needed

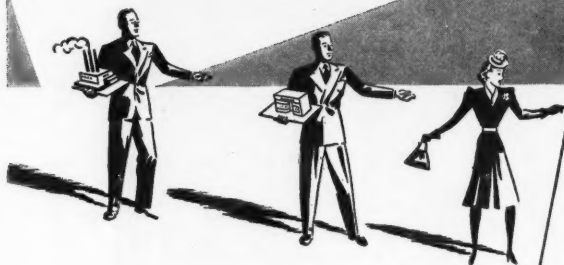
• Capable technical counsel to help you with your most intricate problems!



Pennsylvania TRANSFORMER COMPANY

1701 ISLAND AVENUE, N. S., PITTSBURGH, PA.

**MANUFACTURER
RETAILER
CONSUMER**



**All 3 factors in distribution
welcome
these 3 advanced
heat control features!**

Robertshaw can always be depended upon to provide improvements which enable gas companies and equipment dealers to *prove* to the consumer that the best cooking service is gas cooking service.

Are your salesmen armed with this efficient sales manual? It's boosting earnings for thousands of salesmen every working day. Write for a copy—free.



1. GREATER

Simplicity

One motion turns gas on full—sets control. It saves one more operation for the user. Brings gas operating one step closer to complete automatic service.

2. GREATER

Speed

With cock and thermostat dial combined in one unit, user will turn dial fairly high when lighting the oven. The resulting full flow of gas assures quick, safe ignition.

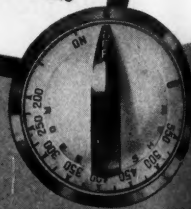
3. GREATER

Accuracy

Each time oven is used, thermostat must be set. Each time oven is turned off, thermostat setting is automatically cancelled. Automatic cooking with gas is made more certain and brought into wider use.

ROBERTSHAW
THERMOSTAT COMPANY

Youngwood, Pennsylvania



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A STITCH IN TIME..

E.T.L. is prepared to help you pre-determine *performance* and *quality* of new equipment . . . prepared to give you, by test, the "stitch in time" information that often saves needless waste and expense.

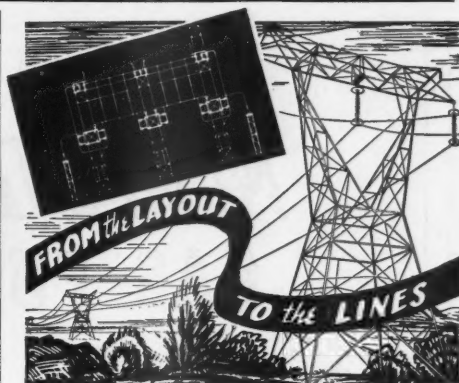
By taking advantage of **E.T.L.**'s extensive facilities, the utility not only enlists the aid of our many years experience in the testing field to supplement its own research department . . . but avoids heavy investment in special apparatus.

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TESTING
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East End Avenue and 79th Street
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USE **R&IE** CENTRALIZED SERVICE

Use **R. & I. E.** centralized Service for the whole job — complete substation design and equipment. There is a big advantage in putting the entire problem under one responsibility.

In **R. & I. E.**, the Public Utilities have found engineering ability to cope with every outdoor and indoor switching problem. Here are complete design and manufacturing facilities under one roof.

From the layout to the lines, **R. & I. E.** offers the benefit of twenty-five years experience.



**RAILWAY & INDUSTRIAL
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Sales offices in principal cities

NIAGARA GAS FURNACES are A. G. A. Approved



WITH copper chrome cast iron; or . . . Toncan iron heat exchangers . . . selection of belt or direct drive blowers with two speed control . . . summer winter switch . . . modern casing design . . . low prices . . . and A. G. A. approval, Niagara Furnaces meet the demands of speculative and contract builders, home owners and utilities alike.

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The Forest City Foundries Company

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Established in 1890

Lightning test



ARTIFICIAL lightning becomes a shop tool at Westinghouse for pre-testing every CSP transformer before shipment. Tests like this account for the high reliability of Westinghouse transformers in the field. Similar production-line checks on arresters, meters, insulators and other Westinghouse distribution equipment assure you of minimum line maintenance . . . and help to eliminate costly service interruptions.

Westinghouse activities in research, in the manufacture, distribution and application of apparatus, and in promoting the use of electricity, result in better service to you and a wider use of electricity by your customers. They have been made possible and are continually encouraged by your purchases of Westinghouse apparatus.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, EAST PITTSBURGH, PA.

Tune in "Musical Americana," N.B.C. Red Network, Coast-to-Coast, every Thursday evening.

Westinghouse

ELECTRICAL PARTNER OF THE CENTRAL STATION INDUSTRY



How to solve the problems of ELECTRIC DISTRIBUTION

This handy manual presents essential data, factors, tables and diagrams for practical application by all who are concerned with the planning, design, construction, operation, maintenance, inspection and supervision of the electric distribution system.

ELECTRIC DISTRIBUTION FUNDAMENTALS

By Frank Sanford

Distribution Engineer, Cincinnati Gas & Electric Co.

242 pages, 156 illustrations
15 tables, 1 chart, \$2.50

Covering the ABC of electric distribution—of both the utility distribution, and the industrial and inside wiring branches of service to the outlet—this book explains the everyday problems involved in distributing electrical energy anywhere between the major substations and the customers' meters.

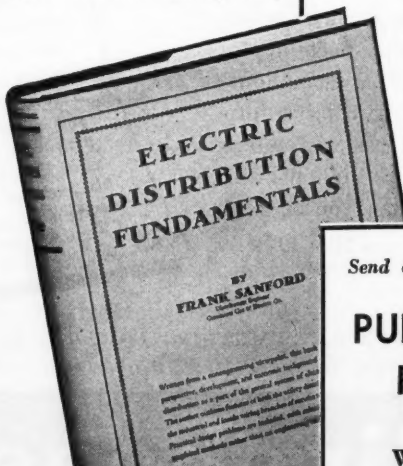
COVERS ALL STEPS

From a nonengineering viewpoint it discusses how the distribution system works; how it is planned, designed and constructed; how service and operating routine is handled; elementary principles of methods and equipment; basic factors of the electric circuit; methods of generation; selection, application and design of transformers; design of carrying lines; problems of maintaining current flow; mechanical principles and strength of materials; how distribution fits in economically with the electric supply system as a whole; etc.

Step by step explanations cover voltage drop, wire size calculations, transformer connections, power factor improvement, inductive reactance, and similar problems.

EASILY UNDERSTOOD

Practical design problems are included with solutions based on diagrams instead of difficult mathematics. Numerous illustrations, diagrams and tables will be found helpful for a quick and complete understanding of the fundamentals.



TREATS:

- design and construction
- operation and service
- methods and equipment
- mechanics and materials

THESE CROWDED CHAPTERS BRING YOU PRACTICAL, HELPFUL DATA

- Perspective of the Electric System
- Distribution to Serve the Load
- The Distribution Division
- Generation of Electricity
- Fundamentals of the Electric Circuit
- Inductance and Related Characteristics
- Tools for Electrical Problems
- Transformers
- Transformer Connections
- Voltage Control
 - Current Interrupting Equipment
 - Voltage Protection — Lightning—Grounding
 - Street Lighting Circuits
 - Mechanical Principles in Distribution
 - Economic Principles in Distribution
 - Measures of Service

Send check, money-order or cash

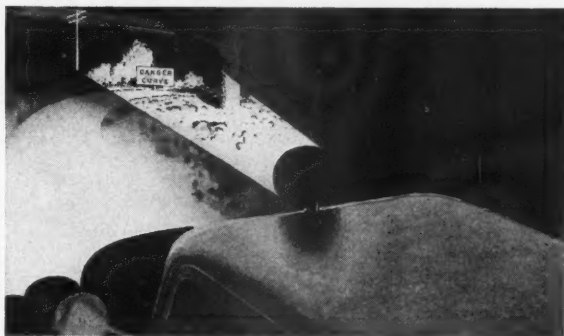
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FORTNIGHTLY**
MUNSEY BLDG.
WASHINGTON, D. C.

"See-A-Mile" MASTER-LIGHTS

Speed Up Your Repair Crews!

Faster, safer night repairs!
That's what MASTER-LIGHTS' **HIGH POWER** and **ONE-HAND AIMING** mean to your repair crews! MASTER-LIGHTS' brilliant mile-long beams even spot broken insulators at a distance in any weather. They give your repairmen the light they need to work faster in greater safety!

And your drivers will praise the One-Hand Controls of roof-mounted MASTER-LIGHTS—for this patented feature gives them greater convenience in locating trouble spots and more safety in driving!



You'll find MASTER-LIGHTS soon pay for themselves in time saved. And you'll find replacement costs amazingly low—for MASTER-LIGHTS are built to last! Rust and weather-proof construction is all aluminum, brass, and bronze, heavily chromium plated—reflectors are fully parabolic, triple silver plated.

TYPE F5 MASTER-LIGHT

(Illustrated below)

For General Utility Purposes

Searchlight Range: over one mile. Special Super-powerful two-filament bulb, with long-burning, low power consumption service light; or brilliant 50,000 to 200,000 candle-power searchlight. 3-way toggle switch operates both filaments. 6-in. diameter reflector.



MAKE YOUR OWN TESTS!

Your own operating conditions—your own service usage—these are the proving grounds you can trust! Send now for the MASTER-LIGHTS you need. We'll ship them to you at once for 30 days **FREE TRIAL**. Then—watch overtime emergency crew payrolls shrink—worker efficiency rise! And remember—when you decide to make your MASTER-LIGHTS standard equipment, you're in line with outstanding public utilities all over the country!



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Roof Searchlight for Repair Cars, Busses, Trucks, etc. "Gearless" Inside Control.

Choose Your Lights Now

Our new folder, "1940 MASTER-LIGHTS" illustrates and describes our full line of public utilities searchlights and floodlights. You'll find the MASTER-LIGHTS you need in it! Write for your copy today. Address,

Searchlight range: one mile. Most powerful automobile spotlight made. Points in any direction. Penetrates smoke and fog. Operates economically from car battery. Friction device holds light in any position regardless of vibration or rough roads. 6-in. triple silver plated reflector. Construction is of the best throughout. Rust and weatherproof. No gears to wear and rattle.

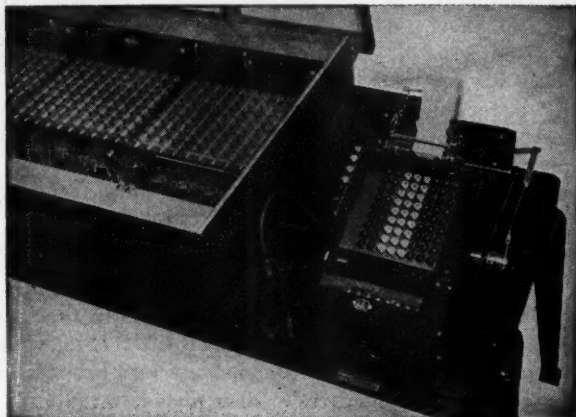
CARPENTER MFG. CO., 179 Sidney St., Cambridge, Mass.

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Customer Usage Data

- At Lower Cost
- In Less Time
- With Greater Accuracy

THE ONE-STEP METHOD



OF BILL ANALYSIS

R & S Bill Frequency Analyzer: developed for our Utility Rate Service. The kw.-hrs. billed are entered on the adding machine keyboard. A tape is prepared of all items and a consumption total accumulated which serves as a control. At the same time—through this *single* operation—the bill count for each kw.-hr. step is made by the electrically controlled accumulating registers.

● A continuance of frequent rate changes—the necessity of checking load-building activities—the pressing need for current data on customer usage—are but a few of the reasons many Companies are using R & S ONE-STEP METHOD to analyze and compile information required for scientific rate making. They have not only reduced the costs on this work to a fraction of a cent per item, but have obtained monthly or annual bill-frequency tables in a few days instead of weeks and months.

● Write for your copy of "The One-Step Method of Bill Analysis," an interesting booklet which describes briefly how these savings are accomplished.

Recording & Statistical Corporation

Utilities Division

102 Maiden Lane, New York, N. Y.

Boston

Chicago

Detroit

Montreal

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THERE'S AN EXIDE FOR EVERY STORAGE BATTERY APPLICATION

IN POWER plants all over the world, the extensive use of Exide - Chloride Batteries in stationary service indicates the high regard in which they are held by consulting and operating engineers everywhere.

Kept floating on the line and consequently well charged at all times, the Exide-Chloride affords dependable protection against interruptions in service occasioned through uncontrollable emergencies.

That explains why these batteries are used in such a

wide variety of plants for the operation of circuit breakers, steam valves, boiler and fire alarms, telephones, remote control, time clocks, and for emergency lights, excitation and other services.

Write us for detailed information about this distinctive battery. Learn why its Manchester Positive and Box Negative plates retain their active material much longer than ordinary batteries and give this battery such exceptional life.

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CHLORIDE
BATTERIES

THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia
The World's Largest Manufacturers of Storage Batteries for Every Purpose
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"New industries will not just happen as the automobile industry did. They will have to seem probably desirable features of the whole economy before they can be entered upon."

—Rexford Guy Tugwell



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Nope, No Social Significance!

NOTHING about the automobile* industry to make it a "probably desirable feature of the whole economy," when, in 1892, Charles and Frank Duryea drove a gasoline buggy through the streets of Springfield, Mass.

Nor in 1893, when Mrs. Ford watched Henry go popping down Bagley Avenue, in Detroit.

Still no social significance, that a brain-truster could detect, even in 1899 when companies with aggregate capital of 338 millions had been organized to manufacture these new vehicles.

If "planned economy" had been the law forty years ago, America might still be gidapping, for there was nothing in the early efforts of Ford, Olds, Hupp, Packard, Willys and the others to convince the bureaucrats that the automobile was destined to provide

more jobs, more leisure, and, oh yes—more tax money, than all industry combined had provided in any year previous to 1910.

The brainiest brain-truster can't plot the course of initiative. He can plot only the *status quo*. But initiative built the automobile, the railroad, the radio and all the other American symbols of abundant living.

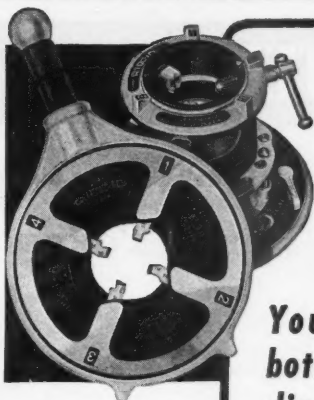
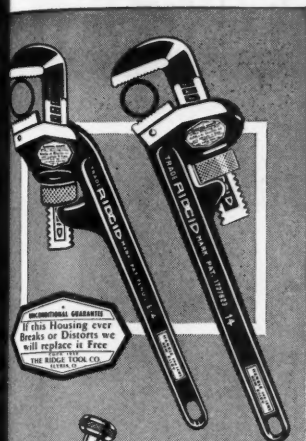
Yes, the professor is right—"new industries will not just happen." They never have. They rise out of a way of life that lets men dream and build their dreams into tomorrow's realities. What Helps Business Helps You.

*Write for "Your Automobile and Free Enterprise" enclosing 10 cents to cover costs.

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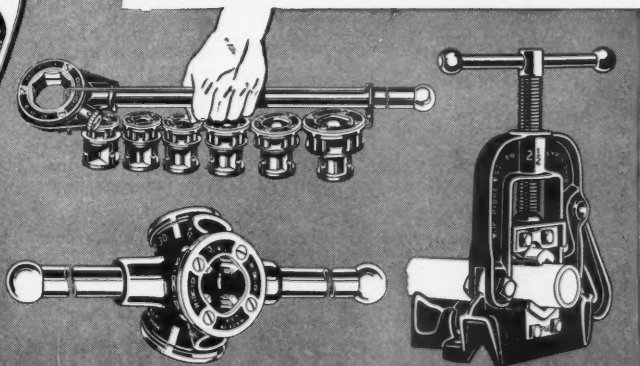


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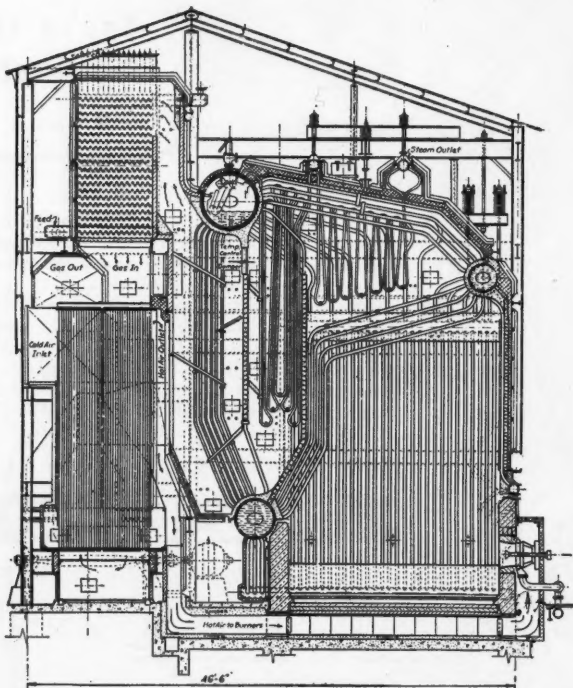
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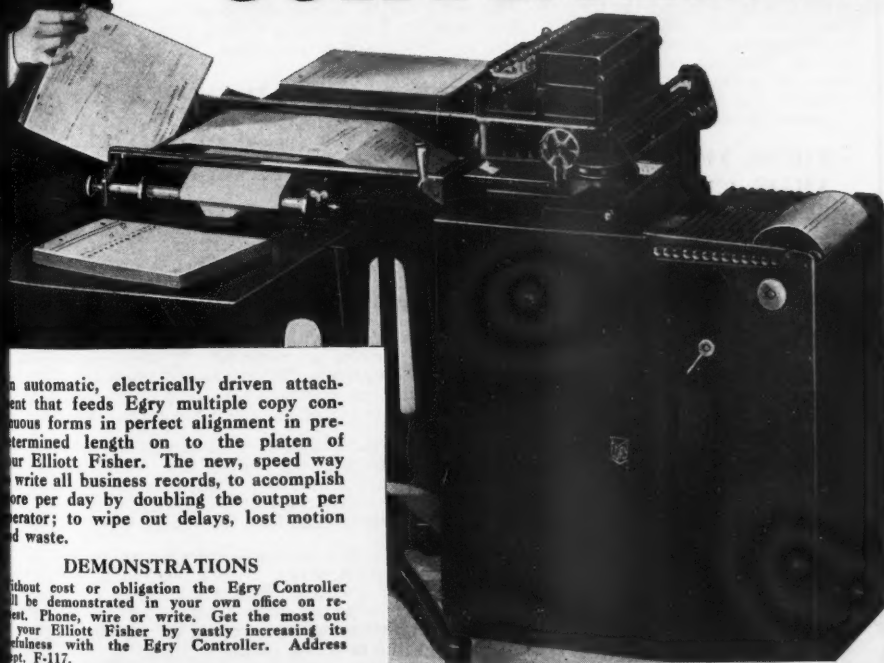
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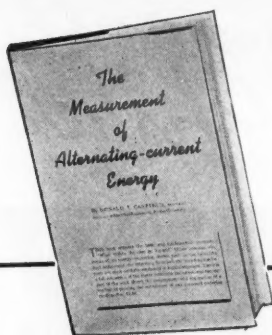
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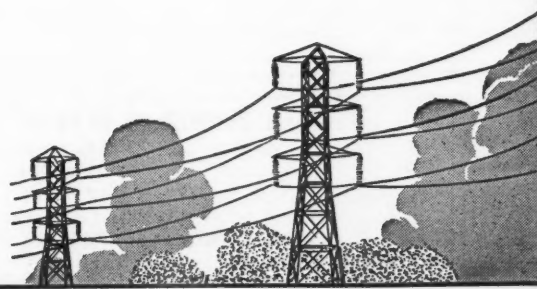
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